Stabilisation or Financialisation? Examining the Dynamics of the Brazilian Public Debt

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Declaration for SOAS PhD thesis

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Abstract

This thesis examines public debt in Brazil in the post-1994 period with specific emphasis on financialisation and the role of government bonds in this process. It deploys a Marxist framework to bring together theories on public debt and financialisation, which is rare and certainly unprecedented in Brazil. Unlike the more traditional discussions of public debt, in which bond-financed public debt is mostly examined via its impact upon aggregate demand and consequent effects on output, this framework explains the functionality of government bonds within the credit and financial systems based on an understanding of bonds as titles of fictitious capital. These titles are the precondition of financialisation and central to the contemporary credit system.

From this perspective, government bonds are not a fortuitous aspect of state finance, but rather a powerful tool through which the government is able to intervene, via monetary policy, in financial markets, influencing from liquidity and availability of capital to portfolio variation, returns on real and financial investments, and prices of real and financial assets in general. Further, these bonds offer unparalleled scope for purely financial accumulation and are used as the backbone of operations in the secondary market. Thus, public debt can neither be avoided nor paid off in minimally complex capitalist economies.

Based on this framework, the result of commercial and financial liberalisation and financial deepening since the 1990s in Brazil is two-fold. First, the state uses government bonds to intervene in the market, absorbing losses and guaranteeing hedge mechanisms in order to manage the contradictory demands of growth, stability and distribution under financialisation, which has locked Brazil into a *stabilisation speculation trap* since the 1990s. Second, government bonds assume an even broader role in achieving a sound economy, as they are increasingly in demand as an instrument for devising monetary policy and consolidating the financial system. This role does not necessarily imply the existence of fiscal deficits. This means that the public debt in Brazil from 1994 to 2014 is not a reflection of fiscal policy, but rather the *subject of the financialisation process*, as the state not only passively suffers the impact of financialisation and manages its effects, but is transformed when underpinning, fomenting and paving the way for financialisation through its own indebtedness.

Both results show the particularity of the Brazilian financialisation process, which is buttressed by the public sector debt. Further, they indicate that rather than being inefficient or restrictive, fiscal and monetary policies in peripheral countries within a context of financialisation have a more complex role than is reflected in Keynesian theory, or in the ISI developmental period. Public sector debt is a centrepiece of capital accumulation and surplus generation process that takes an increasingly financialised (fictitious capital) form – both in Brazil and globally. Brazil is pulled along in this process, insofar as it has been pulled into financialised global economic relations at a time when (super) leveraging has been generating new magnitudes of financial risk for financial-market participants around the world, especially for nations holding residual risk claims.

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I wish I had more time and energy to write these acknowledgments and properly thank everyone who encouraged me over these four years. A PhD is a lonely path and I would not have been able to walk it without the support of others.

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"The more we examine the models, we delve into the laws of taste and of art, and we understand the extent of our responsibility, the more our hands and spirit shirk from the task, even though our ambition — albeit no longer presumptuous, but self-reflective — is thereby aroused. This might not be the law of geniuses, upon whom nature bestowed the nigh-unconscious gift of supreme audacity; it is, I consider, the law of average aptitudes, the general rule of minimal intelligences" (Machado de Assis, *Ressurreição*)

Table of Contents

List of Figure

List of Tables

Chapter 1 – Introduction

1.1. Motivation

1.1.1. The theory

Public debt is an institution as old as the state in economic life. Public indebtedness, which is incurred through loan contracts and/or issuance of bonds, gradually became common in capitalist countries, and developed considerably following the rapid expansion of banking activities themselves (Goodhart, 1988; Kregel, 1998). The turning point in this process was the Keynesian Revolution. From this moment onwards public debt became a macroeconomic tool, which implied a positive approach to deficit expenditure (Blinder & Solow, 1973; Jain, 1989; Musgrave, 1983).

Government bonds after the Keynesian Revolution are examined within the issue of how to finance government spending. This also includes discussions on money- and tax-financed spending. The literature that unfolds around these points is impressive. It revolves around the effects that fiscal policy has on the real variables of the economy and outputs considering the burden of the debt (Domar, 1945; Lerner, 1951, 1970a). It is challenged by the notion of crowding out of private capital and the concept of budget constraint (Buchanan, 1958; Christ, 1967; Diamond, 1965; Modigliani, 1944) and vitiated by doubts regarding the wealth effects of government bonds in capital markets and by the inclusion of the assumption of rational expectations in the debate on public debt (Barro, 1974; Lucas, 1976; Sargent, 1987). It is then further challenged by the entry of monetary policy into the debate followed by a scepticism towards fiscal policy and the issuance of government bonds, especially when it comes to effects on aggregate demand (AD) and outputs (Friedman, 1974; Meyer, 2001; Sargent, 1979; Woodford, 2009).

In this discussion a large amount of ink has been expended on two issues. One is the calculation of the size of multipliers to discuss mainly the effectiveness of fiscal policy, but also the case of monetary policy (Barro & Redlick, 2009; Blanchard & Perotti, 2002; Burnside, Eichenbaum, & Fisher, 2004; Christiano, Eichenbaum, & Rebelo, 2011; Fraga, Briseño & Heras, 2016). The second – and to a certain extent linked to the first – is the dispute between fiscal and monetary policy when it comes to macroeconomic management of the economy (Arestis & Sawyer, 2003, 2006; Forges

Davanzati, Pacella, & Realfonzo, 2009; Godley & Cripps, 1983; Godley & Lavoie, 2007a).

This dispute became more evident after the rise of the New Macroeconomic Consensus (NMC) and the public debt management (PDM) literature in the 1990s. Both, for different reasons, would give more space to monetary policy at the expense of fiscal policy. In the first case, at stake is monetary control and use of interest rates and inflation targets (Meyer, 2001; Woodford, 2009). In the second case, the focus is on government bond markets and how the PDM has to target the largest amount of funding at the lowest possible cost in the medium to long run, consistent with a prudent degree of risk. This demands constant intervention by the central bank, via monetary policy, targeting an adequate interest rate, debt profile and maturity following investor preferences regarding long and short-term bonds (Calvo & Guidotti, 1990; Eichengreen, 2008; Gokhale, 2002; Guidotti & Kumer, 1991; IMF & World Bank, 2014; Missale, 1999; Okun, 1967; Wheeler, 2004) (see Chapter 2).

Despite this extensive, rich and complex discussion on public debt, it can be argued that the analysis of government bonds has been done within a specific tradition. Essentially the discussion on government bonds follows and is embedded within a tradition of bond-financed expenditure, expansionary fiscal policy and public indebtedness. This has two important implications. Firstly, an examination of government bonds without discussing and calculating multipliers or considering the Ricardian Equivalence (RE) or debt sustainability is basically impossible. In other words, a literature survey on government bonds, considering different schools of economics, leads mainly to issues that can be summarised in terms of debt burden, crowding out effect and debt neutrality, reminiscent of O'Connor's 1973 remark that economists "restrict themselves to estimates of the volume of state spending necessary to effect desired changes such as high employment or more rapid accumulation or growth" (p. 5).

Secondly, it is rare to find in this literature a discussion of the issuance of government bonds unrelated to budgetary needs or government fiscal operations' influences on levels of economic activity and employment. Blinder and Solow (1976), Godley and Cripps (1983), and Okun (1967) touch upon this aspect, but the discussion is still very much attached to the accommodating role of monetary policy given a previous issuance of bonds or the existence of a budget surplus.

It can be argued that the functionality of government bonds is often understood as a stimulus (or lack of) to AD, as a mechanism to cover government fiscal deficits, or a tool to manage the risks and costs of the public debt itself (see Chapter 2). In all of these cases, public debt needs to be managed, or even eliminated, to avoid a burden on society. In this context, government bonds are passive. In other words, within these approaches, government bonds are a reflection of fiscal policy and there is no direct, specific or analytical discussion of how they are a crucial tool in managing and controlling financial markets. Nor is there any clear discussion of the fact that government bonds assume an even broader role in achieving a sound economy in which they then play an even more active role.

As will be discussed in this thesis, the relationship between government bonds and financial markets is independent of government expenditure, being based on the goals and tools of monetary policy. Although this may seem obvious, it is rarely discussed in the literature on public debt, at least not in a systematic way or based on a suitable theoretical framework. This is a significant shortfall in the discussion, as

> [o]nce it is recognised that Treasury securities issuance has a monetary policy component, one can understand why, in a monetarily sovereign government, the Treasury may issue more securities than its budgetary needs and why the Treasury cares about many other things than funding itself when it issues securities. (Tymoigne, 2016, p. 6)

The PDM, with its focus on government bond market development and the use of monetary tools, gives margin to and argues in favour of governments issuing debt not to finance expenditures but to support the development and liquidity of domestic financial markets. However, unlike the case of fiscal policy, the literature at the academic and policy level neither explores the burden that monetary policy places on the public sector debt nor develops assumptions or concepts regarding the constraints that this type of use of government bonds may have on the public sector fiscal budget. This seems convenient considering that on several occasions monetary tools such as sterilisation or rediscount operations have been susceptible to non-fiscal imperatives, as will be shown in the case of Brazil.

Further, the PDM literature encourages the development of financial markets in general, regardless of the impacts that speculative practices, trade risks, currency

speculation, opportunistic investor behaviour and financial innovation in general have on the public sector debt. Especially when it comes to emerging economies such as Brazil, the development of the government bond market is closely associated with financial deepening and financial liberalisation, despite several critiques regarding their impact on these economies (Barbosa-Filho, 2005; Crotty & Lee, 2005; de Paula & Alves, 2000; Dymski, 1999; Onaran, 2007; Palma, 1998; Soederberg, 2002; Taylor, 1998).

In order to discuss the more active role played by government bonds, it is necessary to turn to a different framework. The fact that government bonds are used as a monetary policy tool needs to be approached from two different, yet complementary, angles. First of all, government bonds are understood as titles of fictitious capital (Marx, 1991), i.e. they are the result of a stream of potential revenue being capitalised as a financial asset and then exchanged as interest-bearing capital (IBC). These titles essentially guarantee a claim on property or financial revenue. Their trade, and therefore mobility, are crucial to the development and expansion of credit and the development of the financial system (Brunhoff, 1976; Fine, 2009, 2010a, 2013a, 2013b; Paulani, 2011; Rotta & Teixeira, 2016; Saad-Filho, 2015).

As with any title of fictitious capital, government bonds draw upon surplus value that is produced in society as a whole and, in this particular case, this value is transferred to the bondholders via the tax system. These bonds connect the public and private spheres and are very safe and liquid assets. Within this framework, government bonds are also one of the most important tools whereby the state can manage and intervene in financial markets (Davis, 2010, 2012; Krätke, 2009; Trindade, 2012) at the expense of the public sector debt. From this perspective, it is possible to outline other important functions of government bonds that are not associated with bond-financed deficit expenditure and the fiscal stimulus. These functions are broadly related to managing financial market liquidity, portfolio diversification, returns on real and financial investment, and price-setting of real and fictitious assets in general (Henwood, 1998; Saad-Filho, 2015). Thus, government bonds are an active tool used by the state to intervene in financial markets, and their functions extrapolate the needs of state financing to either cover deficits or stimulate AD. From this perspective, public debt "can neither be avoided entirely nor paid off in minimally complex capitalist economies" (Saad-Filho, 2015, p. 12) (see Chapter 3).

The second angle relates to the development of mechanisms for transactions with fictitious capital, which in this thesis is understood to be the precondition of financialisation and central to the contemporary credit system. The rise of financialisation since the 1970s has been based on the intensive and extensive expansion of these titles to fictitious capital (Fine, 2013a, 2013b) and has resulted in changes in the state. The most common is the state's support of this process by lifting regulations and implementing reforms (including changes in the labour market) that pave the way for expansion and trade with these titles. Financialisation based on the intensive and extensive expansion of titles of fictitious capital is a particular definition because it also considers the functions these titles of fictitious capital have in the credit and financial system, which implied its proliferation in many segments of the economy.

In broader terms, one can argue that changes in economic policies within this context are mainly approached from the perspective of financial globalisation and financial liberalisation (Cohen, 1996; Eichengreen, 1994; Obstfeld & Taylor, 1997; Rodrik, 1998, 2000, 2011; Stiglitz & Ocampo, 2008; Strange, 1996; Webb, 1991). And, more specifically, but not uncoincidentally, there also are the changes in monetary policy and central banks' management regarding an increasing reliance on government bonds and financial innovations to manage the proliferation of foreign exchange trading, risk hedging, speculation and cross-border financial activity more generally (Belluzzo, 1997; Braga, 1997; Fiori, 1997; Gabor, 2016; Gabor & Ban, 2016; Hardie, 2012; Lagna, 2015, 2016; Miranda, 1997; Mosley, 2003; Painceira, 2009, 2010).

As it will be discussed in this thesis, both angles show why government bonds are the keystone of financial markets, and, at the same time, a source of financial accumulation, rather than a more fortuitous aspect of state finance. However, a crucial point emphasised by this thesis is that, the process of financialisation offers inputs to understand "the role of the state as regulator of the monetary and financial systems, and itself as a major agent in the provision of financial instruments, *not least through its own indebtedness – paper bonds as a form of fictitious capital*" (Fine, 2010b, p. 13 emphasis added), which are not mainly related to fiscal policy, but rather monetary policy (see Chapter 4).

1.1.2. The evidence

This thesis examines public debt and financialisation in Brazil from 1994 to 2014. Brazil achieved a primary surplus for fifteen years, from 1998 to 2013 (Figure 1.1).

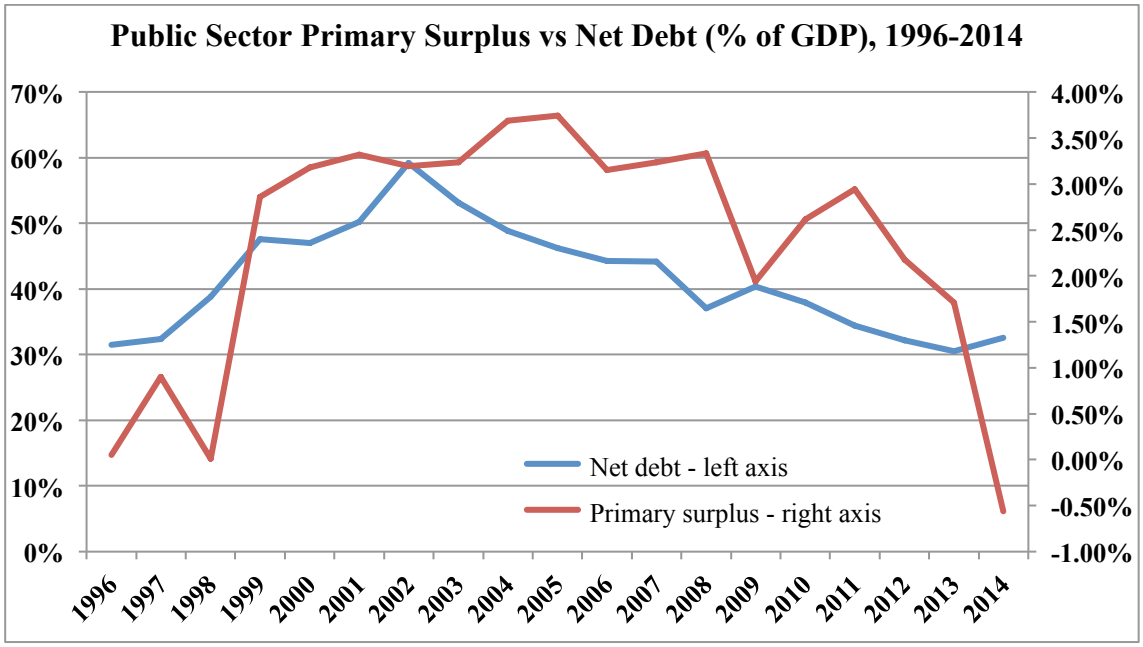

Figure 1.1: Public Sector Primary Surplus vs Net Public Sector Debt (1996-2014)
Source: Banco Central do Brasil (2016a) and Secretaria do Tesouro Nacional (2016a)

Since the 1990s, a deficit control approach has dominated fiscal policy following the implementation of the Washington Consensus (WC), the Real stabilisation plan in 1994, and the implementation of the inflation targeting (IT) regime in 1999. However, despite continuous primary surplus achievements, control of the debt to GDP ratio (D/Y) has been slightly erratic (Figure 1.2), and the reasons for the D/Y's downward tendency after 2002 are complex. Neither orthodox nor heterodox economists[1] are satisfied about the debt trajectory, and the debates around public debt in

[1] Orthodox economics is associated with mainstream neoclassical economic theory. Broadly speaking, neoclassical theory includes a core set of propositions such as scarcity, equilibrium, rationality, preferences, methodological individualism and derivative beliefs, vocabulary, symbols and parables. In more specific terms, the Walrasian model is considered to be the backbone of mainstream economic theories. Heterodox economics refers to a collective of alternative theories vis-a-vis mainstream theory, and it encompasses, for example, Austrian, Feminist, Institutional-evolutionary, Marxian, post-Keynesian, Sraffian, and social economics. Further, heterodox economics implicitly and/or explicitly means a critique to the applicability to the world of experience of the logical conclusions of Walrasian [classic equilibrium] (Kapeller & Springholz, 2016). In this sense, as Dymski (2014) argues, neoclassical theory functions as an intellectual sink where "all ideas are understood (or not understood) relative to their distance from Walrasian general equilibrium. Heterodox theory, by contrast, has the structure of clusters along a spiral: it contains a rich set of loosely-related but largely independent foci (gender, race, instability, uncertainty), each developing along one or more exploratory trajectories that intersect but always push deeper into historically and conceptually distinct intellectual ground" (p. 4). In the case of

Brazil have caused a continuous stir in both academia and the mainstream media (see Chapter 5).

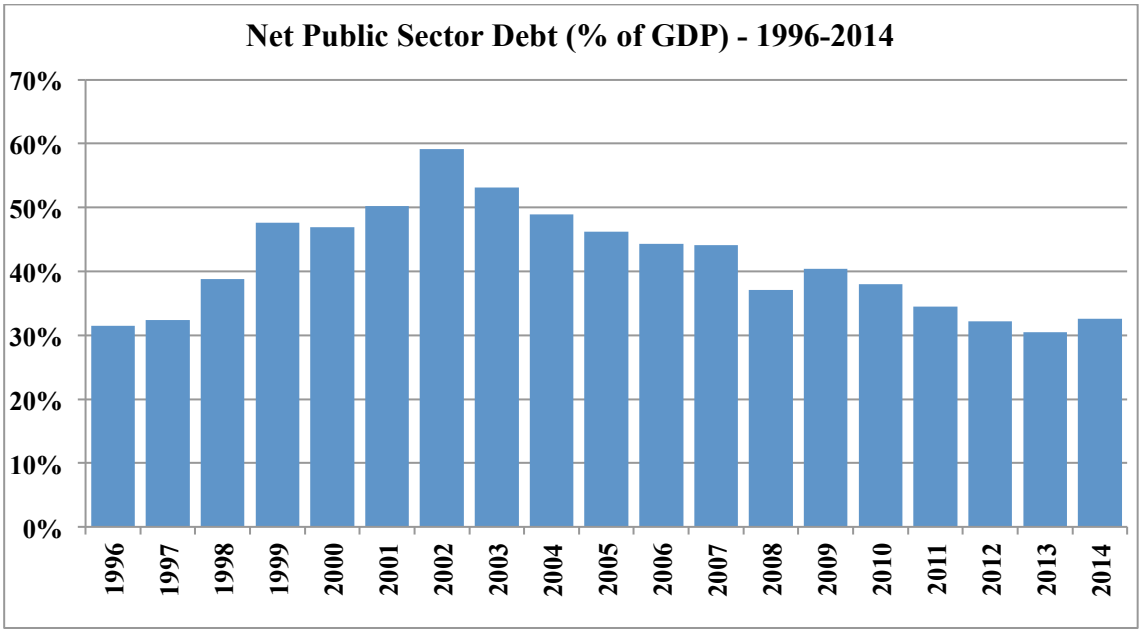

Figure 1.2: Total Net Public Sector Debt 1996 - 2014 (% of the GDP)
Source: Banco Central do Brasil (2016b)

The orthodox approach constantly pushes for rising tax and primary surpluses to control the D/Y ratio. There are also proposals arguing in favour of a zero nominal deficit achieved through gradual and increasing primary surpluses together with cuts in primary expenditures (Bevilaqua & Garcia, 2000; de Barros, 2011; Delfim, 2005; Giambiagi, 2002, 2006; Pastore & Pinotti, 2016). High debt service is examined and considered an issue, but the proposed solution focuses on reducing the public deficit, as it is high public deficits that cause interest rates to rise in the first place (Pastore & Pinotti, 2000, 2002; Vivian & Mendonça, 2010). Short-term maturity bonds and indexation to floating rates, such as the SELIC,[2] are also considered issues, but these are mainly the result of the Central Bank of Brazil's (BCB) failures in extending the debt maturity and responding to the risk premium demanded by private investors, and the

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the theory of public debt in Brazil, this division is mainly based on different ways to approach government deficit and interest rate. On one hand, orthodox approaches rely on the RE, assumptions about the need for fiscal balance in line with the monetarist approach to the causes of inflation, and New Classical Macroeconomics models based on rational expectation or the life cycle hypothesis. In this context, it is claimed that high public debt leads to high domestic interest rates. One the other hand, heterodox approaches in Brazil not only have a different take on the fiscal balance, which involves an assuming role for the government deficit in managing the economy, but also a different explanation for high interest rates, one that is not based on the concept of demand inflation and consider the historical and institutional particularities of the Brazilian economy. See more details in Chapter 5.

[2] Special System for Settlement and Custody (SELIC). See annex at the end of this thesis.

failure of the government to control the exchange rate in a context of financial liberalisation (Barcinski, 1999; Bevilaqua & Garcia, 2000; Pires, 2005).

This thesis' engagement with the orthodox literature is for now left in second plan due to two main reasons. Firstly, as Hermann (2002) posited (and is still valid for the period analysed), a simple ex-post arithmetic analysis comparing primary surplus against nominal interest expenditure is enough to provide an irrefutable argument showing that the financial costs of the public debt have increased its stock (p. 2). Secondly, as argued by Lopreato (2002), the explanation for high interest rates in Brazil should not be sought in the public deficit, as this represents a view of inflation and government spending based on a simplistic causative relationship between monetary base expansion and inflation (p. 280). In Brazil, the causes of inflation are much more complex, but regretfully a discussion of this is beyond the scope of this thesis.

Heterodox scholars rightfully argue that the causes of the increase in the public sector debt in Brazil are found in the financial costs of monetary policy (Alves, Ferrari, & de Paula, 2004; Bastos, 2015; Belluzzo & Carneiro, 2004; Carneiro, 2006; Carvalho & Ferrari, 2004; Carvalho, Diniz, Pedrosa, & Rossi, 2016; Corrêa & Biage, 2009; Delgado, 2015; Ferrari, 2002; Terra, da Silva, & Pires, 2012). This perspective assumes the debate on public debt to be related to the discussion of why interest rates are so high in Brazil. Consequently, the discussion around the public debt becomes extensive and complex, as heterodox economists have different explanations for high interest rates and the macroeconomic arrangements that have emerged since the mid-1990s.

At the risk of oversimplifying, one can argue that, for the heterodox literature, the dynamics of the public debt have a close relationship with the articulation between interest rates and the exchange rate policy adopted after the Real plan. Essentially, domestic interest rates became entangled with the need for capital inflows, so that the country began to present a strong external vulnerability, exacerbated by the influence that investor demand for government bonds has on the government. This added to a domestic macroeconomic policy that prioritises inflation control, which also affects interest and exchange rates, causes the increase in public debt. It goes without saying that the literature also discusses the costs for the public sector debt related to, for example, sterilisation policy and reserve accumulation.

However, the heterodox argument may be challenged by two facts. Firstly, interest rates have considerably dropped in Brazil (Figure 1.3).

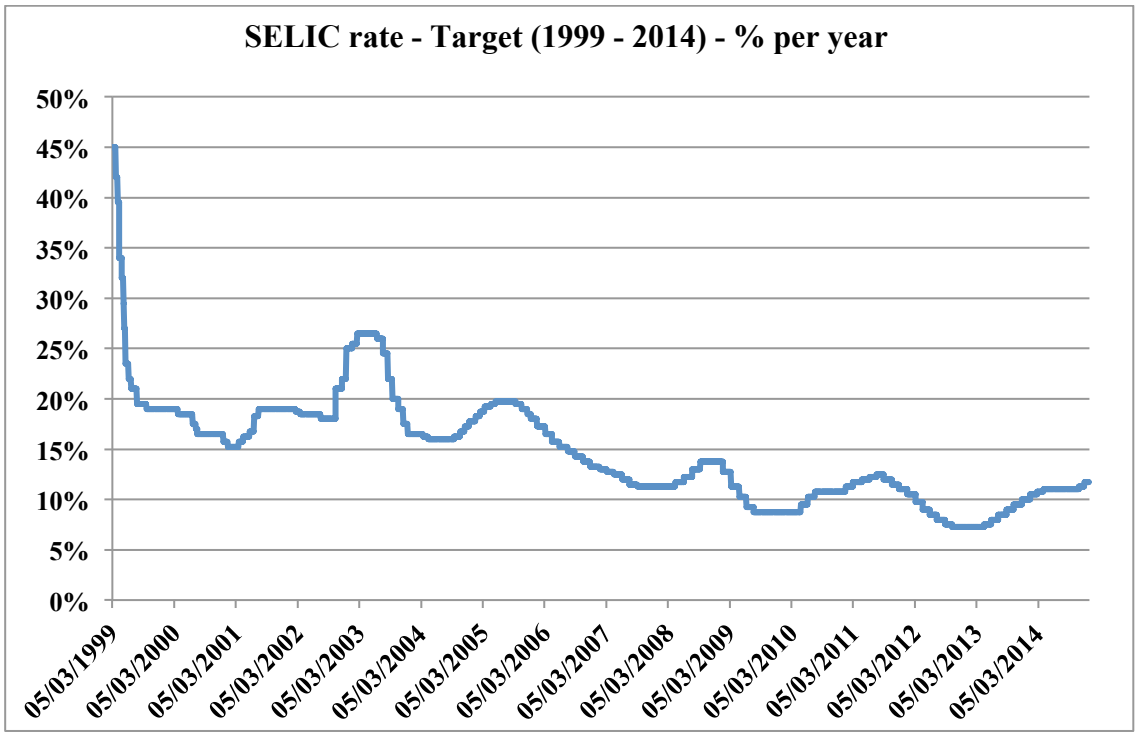

Figure 1.3: SELIC rate /Target 1999 - 2014 (% per year)
Source: Banco Central do Brasil (2016a)

The rates are clearly still very high and the burden of the debt service is, therefore, still weighty. Yet, and secondly, the D/Y ratio has been decreasing since 2002 (Figure 1.2 above) due to economic growth and changes in the public sector accounting methodology (Chapter 5).

One can argue that these indicators do not change the focus, or even rhetoric, on the financial costs of monetary policy being responsible for the increase in the public sector debt. The achievement of primary surpluses is always the last resort used to support this argument, which is then tangled with the cost of foreign reserves and interest paid on foreign exchange swaps (FX swaps) and repos operations. Generally, all of these costs are often discussed under the larger umbrella of the financial costs of monetary policy, and the new issuance of debt to cover the interest payment is explained and denounced in two main ways, namely, the rentier logic of the Brazilian state (Bruno & Caffé, 2015; Medialdea, 2013; Paulani, 2003) or the Ponzi scheme situation in which the Brazilian economy finds itself (Terra et al., 2012). Scholars with a strong post-Keynesian influence then argue about the constraints that the macroeconomic arrangements since the mid-1990s have imposed on fiscal and monetary policy in Brazil (Alves et al., 2004; de de Paula, 2011; Ferrari, 2002) while scholars discussing neoliberalism emphasise the submission of the Brazilian state to the

imperatives of the financial markets and financial investors' behaviour (Boito, 2016; Novelli & Galvão, 2001; Saad-Filho, 2003b; Saad-Filho & Morais, 2002).

Although this is right, what is missing in the majority of the heterodox analyses of public debt in Brazil is a consideration of the process of financialisation of the economy. This is not the same as considering the process of financial globalisation and the submission of economic policies to a type of finance dominance. The dynamics of the public debt in Brazil, i.e., the way it grows, is related to the increase in government bonds denominated in Real, which refers to the Federal Domestic Marketable Debt (FDMDi), henceforth domestic public debt (DPD).[3] This is not new, and it has also been pointed out by heterodox scholars. The difference is the examination of monetary tools, old and new (repos, FX swaps, rediscount operations and so on), from the perspective of the state's increasing reliance on Real denominated government bonds and financial innovations to run its apparatus, implying that monetary policy and BCB management in Brazil have changed.

As mentioned before financialisation based on the intensive and extensive expansion of titles of fictitious capital considers the functions these titles have in the credit and financial system. Essentially, the Brazilian government uses government bonds and financial innovations to manage the increase in trade with fictitious capital in the economy and its implications for macroeconomic risks and instability, as well as the exchange rate, inflation and interest rate. In this context, as it is showed in Chapter 6, not only monetary tools are intricate with a myriad of financial instruments and transactions, but also offer a privileged place for short term and speculative financial investments.

In this sense, the monetary tools mentioned above quite often respond to non-fiscal imperatives that are wholly unrelated to the government's fiscal policy stance but are related to financialisation and the monetary policy that follows. That is why the distinction between public sector deficit and fiscal deficit is important (Chapter 7). In the former, monetary authority decisions on using, for example, open market operations (OMOs), changes in the compulsory bank reserves, or FX swaps, are the source of non-fiscal factors and are inseparable from financialised practices in the economy. Their implications for the public sector debt remain even with low interest rates, capital control or de-indexation of government bonds from floating rates.

[3] See annex at the end of thesis.

1.2. Thesis objective and contributions

This dissertation contributes to the existing literature on three levels: theoretical, empirical and methodological.

On the theoretical level, this thesis challenges the traditional theories of public debt. Within this traditional approach government bonds are mainly understood from the perspective of bond-financed expenditures that may or may not have an impact on AD and then on real economic variables: they are merely a result of public deficit. However, give the rise of financialisation and the development of financial markets, the dynamics between fiscal and monetary policies are no longer the same. The issuing of government bonds in this context is more closely linked to monetary policy and is independent of public deficits. In this light, government bonds must be understood and contextualised as performing new roles in the economy, which go beyond those associated with fiscal policy. States' increasing involvement in financial transactions through the myriad of new financial instruments (which enable rather than constrain the exercise of statecraft within the contradictory demands of growth, stability and distribution under financialisation) is defined as *financialisation of the state.* In this context, government bonds are active and not a passive consequence of public deficits

Contributions to the study of public debt in Brazil continue to examine public debt based on traditional approaches to fiscal and monetary policy. The main concern is the extent to which financial globalisation and financial integration have imposed constraints and limits on these two economic policies. Therefore, it is rare to find a discussion of government bonds assuming an even broader role in achieving a sound economy that is not associated with financing government deficit expenditure. In contrast, this thesis attempts to bring together the discussion of financialisation and public debt in Brazil. The result is an analysis that not only focuses on high interest rates, but also exposes how the state in Brazil uses monetary policy and government bonds to absorb risks and fluctuations in the financial markets emanating from the volume and complexity of the financial assets produced, accumulated and traded. As a consequence, the driver of the public sector debt in Brazil is the monetary policy and its tools, and the public sector debt is at the core of the financialisation process in Brazil.

Secondly, on the empirical level, this thesis shows that since the beginning of the 1990s there has been an increase in the DPD in Brazil. The Brazilian government bonds market is one the ten largest in the world (Bank for International Settlements, 2007) and the DPD reached 51.5 percent of GDP in 2014 (Secretaria do Tesouro

Nacional, 2016). There are various reasons for this, ranging from the government's original 1964 objective of creating a Brazilian sovereign bonds market to the institutional reforms via the WC. This growth of the government bond market is frequently understood as a sign of modernisation and developed financial markets for economies like Brazil. Nevertheless, this thesis contextualises this long envisaged growth within the rise of financialisation in Brazil and, as consequence, it argues that the expansion of the government bonds market in Brazil is related to both i) a monetary policy that used the DPD to lead the insertion of the Brazilian economy into an international financial system largely based on speculative and short-term financial investments; and, ii) monetary policy tools that appear as an attractive source of speculative and financial gains, which then results in a financial market structure with an overwhelming dominance of government bonds. The implication is the existence in the Brazilian economy of a *speculation stabilisation trap* (SST) in which the goals and tools of monetary policy result in offering an attractive, secure and profitable source of financial short-term and speculative investments which reinforces high interest rates and the continuous inflow of short-term volatile capital flows.

Finally, on the methodological level, this thesis argues that in Brazil the calculation of the public sector borrowing requirement (PSBR) is contaminated by seven non-fiscal factors: i) cost of foreign reserves; ii) OMOs; iii) external transactions following sterilisation policy; iv) changes in the value of the net international reserves due to variations in the exchange rate; v) net cost of the rediscount; vi) cost of reserve requirements, and, vii) cost of FX swaps operations. These non-fiscal factors are frequently dependent on other factors that escape state control, their impact on the public sector debt is not normally evident, and the relevant variables to estimate such impacts are not readily available. Financialisation increases the need for and enhances the role of the monetary tools linked to these non-fiscal factors. Thus, unlike the heterodox literature that engages with the PSBR concept under the nominal and operational perspectives, this thesis argues that non-fiscal factors should not be included in the PSBR. Further, the inclusion of the process of financialisation in the analysis of public debt makes the need to increase the transparency of the calculation of the PSBR in Brazil even more urgent.

1.3. Thesis Structure

Following this introduction, the thesis is divided into six chapters plus the

conclusion.

Chapter 2 critically reviews both the orthodox and heterodox theories of public debt, thus preparing the ground for the alternative analytical framework presented in Chapter 3. The chapter briefly exposes these theories' focus on debt burden, crowding out effect and debt neutrality while relatively neglecting monetary policy. It then argues that the Monetarist critique, the emergence of the New Keynesian school and the NMC brings monetary policy to this debate. These three events result in the predominance of monetary policy over fiscal policy. This predominance is, to a certain extent, encouraged and prescribed by the international financial institutions (IFIs) and by the PDM, both of which advocate the use of government bonds as a key tool in the development of domestic bond markets.

The chapter shows that, despite differences between the traditions mentioned above, the debate on government bonds is embedded within the context of deficit expenditure and public debt. This debate is essentially based on a clear and intrinsic association between bond-financed expenditure, expansionary fiscal policy and public indebtedness. Thus, it is not possible to examine public debt, and therefore, government bonds, without discussing and calculating multipliers, or without considering the RE or debt sustainability.

The chapter concludes by arguing that these approaches are prisoners of a tradition closely related to what O'Connor (1973) defined as a "simplistic" approach to public finance (p. 5). As a consequence, public debt reflects fiscal policy and there is no direct or specific discussion of government bonds assuming a broader role in achieving a sound economy as tools to manage and control financial markets. This approach implies a passive role for public debt resulted from fiscal deficits rather than a more active role. In order to discuss this more active role, it is necessary to turn to a different framework.

Chapter 3 offers a Marxist framework to analyse government bonds. This framework does not rely on the more traditional discussion of public debt. Rather it aims to utilise one that explains the functionality of government bonds within the credit and financial systems based on the understanding of government bonds as titles to fictitious capital. Fictitious capital is a paper claim on property or financial revenue, the result of any stream of potential revenue being capitalised as an asset and then exchanged as IBC. These titles are crucial to the development and expansion of credit, the expansion and allocation of IBC, and to the understanding of the sources of

instability and speculative booms in the economy. Further, the development of mechanisms for transactions with these paper claims is understood as a precondition of financialisation, and central to the contemporary credit system.

The chapter then argues that as a form of double-entry bookkeeping that links the private and public sector, and as title of fictitious capital that can appropriate surplus value via the tax system to guarantee future resources to finance the national debt, the issuance of government bonds provides a highly liquid and safe security to support private financial markets. As a result, through government bonds, the state is able to intervene in the financial market and influence its liquidity and the availability of loanable capital, portfolio variations, returns on real and financial investment, price-setting of real and financial assets, and contribute to speculation. In this sense, at the same time that government bonds play a crucial role in managing the financial market, they also offer unparalleled scope for purely financial accumulation.

The chapter concludes by arguing that the tendency towards financialisation, and, therefore, expansion of financial markets, needs the support of the state to provide the conditions for concentration and centralisation of resources in the financial system, regulation and deregulation of financial institutions, and providing more sophisticated forms to manage accumulation and new possibilities of crisis, especially in the financial markets.

Chapter 4 discusses the literature defining financialisation with the aim of both defining the term and including state and government bonds in this definition. It begins by defining financialisation at a more abstract level, emphasising the broad set of changes and transformations involved in this process, which explains why the definition of financialisation can vary significantly according to different approaches or foci. It then moves on to show that monetary and fiscal policies make their appearance in these analyses from the perspective of how state policies are less efficient or constrained by free capital flows or capital mobility. The chapter then emphases that there is no proper discussion of government bonds in this literature.

The main reason for this is two-fold: i) a narrow definition of financialisation, generally based only on capital flows and financial liberalisation, with a main focus on international markets; and, ii) analyses of the role of the state essentially focusing on the impacts financialisation has on government policy, on the ways the state manages the adverse effects of financialisation (for example, bailing out financial institutions), and on the ways the state fosters financialisation, for example, by promoting financial

opening. In this context, when the debate on public debt is included it often appears from the perspective of the public indebtedness resulting from when the state steps in to afford the costs of this process and/or when profligate behaviour requires large-scale expenditure cuts to placate the bond markets. The chapter argues that this is narrow view of the role that public debt plays within financialisation, which is certainly related to an even narrower understanding of government bonds as mainly an outcome of public spending and fiscal deficit.

The chapter concludes by arguing that financialisation and the growth of financial markets imply changes in how the state fosters capitalism. Government bonds as an instrument for monetary policy is increasingly needed in this scenario. Given the substantial increase in transactions involving both public and private securities, central banks are bound to adapt and manage the financial markets using tools of monetary policy that rely greatly on both the use of government bonds and or financial innovations that impact the public sector debt as well. This reflects a change in, rather than restricted or inefficient, monetary policy, and an active role for government bonds making these bonds the subject of the financialisation process. In short, governments exercise statecraft according to what is necessary to manage the accumulation of capital under financialisation. In the same way that non-financial corporations (NFCs) have increasingly been involved in financial transactions through the myriad of new financial instruments, the state has also became involved with financial activity in order to run its own apparatus and manage state affairs and the economy. Along the lines argued by Lagna (2016), this is understood as *financialisation of the state*.

Chapter 5 examines the differences between orthodoxy and heterodoxy over the drivers of public sector debt in Brazil. The former focuses on primary expenditure and the need for increasing primary surpluses through higher tax revenues and/or reduced expenditures. The latter focuses on the financial cost of the public debt and, more specifically, on the financial cost of monetary policy within the context of the commercial and financial opening that emerged in the 1990s. In this sense, the study of the public debt in Brazil involves a complex debate around the financial costs of the debt versus the primary expenditures, and fiscal versus monetary policy, followed by disputes over the cause-consequence relationship between the public sector debt and interest rates.

Focusing on the heterodox approach, the chapter then exposes the main channels through which Brazil's public debt increases. It is argued that, despite a great effort by

the heterodoxy in explaining the link between the financial costs of monetary policy based on the configuration that macroeconomic policies have assumed since the 1990s, the literature on public debt in Brazil follows the traditional debates discussed in Chapter 2, which focus on and associate public debt mainly with fiscal expenditure and economic growth. The difference is that, given the particularity of the Brazilian economy, the dispute between fiscal and monetary policy is embedded in how both have been constrained by the commercial and financial opening of the 1990s and the difficulties in reducing the financial costs of monetary policy given the high interest rates and the debt profile. As a consequence, the growth of the debt and its link with monetary policy are recurrently tied to the a general idea around a financial cost of monetary policy that is heavily dependent on high interest rates while neglecting the fact that the drivers of this growth are actually the result of a specific monetary policy in a financialised context.

The chapter concludes by stating that the literature discussing public debt in Brazil has not appropriately included the financialisation process in its analysis, and therefore, is not able to look beyond the idea of constraints imposed on monetary policy and/or understand the changes in the use of government bonds after the 1990s.

Chapter 6 considers that financialisation has always been international and the way the process takes place in Brazil is related to the channels through which the trade of financial assets and financialised practices (such as hedging, speculation and securitisation) develop in this economy. This has demanded state intervention in terms of lifting regulations that used to impede these practices, and developing and implementing new regulations and reforms that allow this type of trade to flourish.

From this perspective, there are two crucial aspects to understanding how financialisation in Brazil was triggered. The first is the rise of financialisation itself through a set of reforms resulting from the collapse of the Bretton Woods Agreement, which impacted Brazil at two different moments, namely, the recycling of petrodollars followed by the measures taken to solve the debt crisis, and the implementation of the Washington Consensus (WC) in the 1990s. The second is the crisis that the Brazilian economy was going through by the end of the 1980s, which facilitated the implementation of a different regime of growth based on foreign savings and financial development and deepening. The monetary regimes since implemented, i.e., the Real plan in 1994 and inflation targeting in 1999, were also instrumental to this process.

From this thesis' perspective, the development of financialisation in Brazil is

marked by the exponential growth of one particular type of fictitious capital, i.e. government bonds. Thus, the finance dominance that emerges after 1994 is not seen only through the centrality of high interest rates in the process of financialisation, which brings substantial gains to the financial sector and financial investments. It is the state's engagement with financial innovations to exercise its economic policy and the state's actions to capture, maintain and counteract the effects of capital inflow that are the drivers of this dominance and, therefore, financialisation. Interestingly, while seeking to counteract threats of foreign capital outflows and exchange rate instability, high interest rates and greater issuing of government debt instruments (GDI) have deepened the financialisation process in Brazil. The institutional, regulatory and policy changes in Brazilian finance, which transferred control over the most important levels of accumulation to a small number of unaccountable institutions controlled by domestic and international finance, and allowed these institutions to hold the vast majority of government bonds and command large amounts of foreign currency, offered the material conditions for this process.

In this light, economic policies assume different functions within the context that emerged after the 1990s, which is understood as financialisation of the state in Brazil.

Chapter 7 is a synthesis of Chapters 5 and 6. It examines monetary policy since the 1990s as a two-way street: since the 1990s monetary policy has been both the result of reforms and economic policies that aimed to modernise and develop the Brazilian financial system and a channel through which the Brazilian state ends up deepening the financialisation process. Essentially, the state, within the arrangements resulting from the stabilisation plan followed by the IT regime, needs to issue more public debt for monetary policy and operations that ends up impacting the public sector debt. These conditions also force the state to continue to reproduce the conditions demanded by financial markets, which in turn foment and consolidate the process of financialisation in Brazil. In this light, monetary policy assumes different functions within the post-1990s context, in which the DPD does not only passively absorbs the impacts and costs of financialisation, but also actively guarantees, sustains and takes part in this process.

This is not a temporary phase based on the government's choice of monetary policy regime. It is certainly true that the particularity of the Brazilian economy regarding the interrelation between exchange and interest rate policies, and the SELIC rate system result in a great financial cost for the public sector. It is also important to

make clear that it is necessary to look beyond primary concepts when looking for the drivers of the PSBR. However, this understanding cannot be mainly, or even only, associated with debt service and high interest rates, and the indexation of government bonds to floating rates. Monetary policy and its tools should be more clearly interpreted and understood as OMOs, repo operations, hedge mechanisms (floating rate indexed bonds and FX swaps), rediscount operations and reserve requirements. These operations have a financial cost for the public sector and respond to non-fiscal imperatives that are wholly unrelated to the government's fiscal policy stance but are related to financialisation and the monetary policy that follows it.

This means understanding the DPD as active and causing the increase in the debt (stock and flows) rather than being something that the government incurs due to existing public deficits. Further, it means that monetary policy in Brazil is subsumed, rather than submitted, to the needs of financial markets and their financialised practices. That is, monetary policy begins to encompass broader functions that are more directly linked to the management of financial markets, rather being constrained or limited.

The implication of this is that the relationship between monetary policy, DPD and financialisation places the Brazilian economy in an SST situation. The reliance on foreign capital and demands from financial markets, including financial market behaviour and investor preferences theorised around the concepts of risk and cost, have required a stable and liquid government bond market and BCB management practices that satisfy those preferences. This has acted as an incentive for financial and non-financial institutions and for foreign and domestic capital to seek large, secure and rapid profits by purchasing indexed and guaranteed government bonds.

This scenario explains how the DPD has been at the centre of financialisation in Brazil. This outcome is not contingent on any political arrangement of a particular political party, or on a specific international liquidity scenario, but on how the state and the central bank have responded to the contradictory demands of growth, stability and distribution under financialisation. In this sense, there is no inefficiency or restriction, but rather a more complex role for fiscal and monetary policy in peripheral countries within a context of financialisation, which should not be challenged based on a nostalgia for the post-World War II Keynesian period or, in the case of Brazil a nostalgia for the developmentalist import substitution industrialisation (ISI) period.

The chapter concludes by reinforcing the argument that monetary policy and its reliance on a myriad of operations with government bonds reflects the change in the

state in the context of financialisation, defined in the previous chapters as financialisation of the state. Its implications will not go away with low interest rates, capital control or de-indexation of government bonds of floating rates.

Chapter 8 concludes, offering a synthesis of the main arguments, acknowledging the limitations of the work and suggesting future avenues of research. The chapter highlights the need to turn to a different framework to examine government bonds and the implications of the SST for the Brazilian economy.

Chapter 2 – Reassessing the role of government bonds within the public debt debate

2.1. Introduction

This chapter critically reviews both orthodox and heterodox theories of public debt,[4] thus preparing the ground for the alternative analytical framework presented in Chapter 3. It argues that very often these theories are not able to move beyond a tradition that understands government bonds mainly as a consequence of fiscal policy and public deficits. The prominence of monetary policy that emerges with the monetarist critique, the New Keynesian school and the New Consensus in Macroeconomics (NCM) does not challenge this tradition. In fact, it consolidates the dispute between fiscal and monetary policy, in which there is no extensive discussion about either the cost of the latter for the public sector or the implications of the use of government bonds by the central banks as tools to manage and control financial markets and to provide hedge mechanisms to financial investors.

The public debt management (PDM) literature that proliferated in the 1990s, especially at the policy level, reveals a broader role for government bonds, which is clearly associated with the use of those bonds as instruments for implementing monetary policy and consolidating the financial system. The literature moves away from the traditional approach mentioned above and argues that the *existence* of public debt is related to the dynamic of financial markets, which is one of the core assumptions of this thesis. However, the literature fails to offer a detailed discussion of the financial costs incurred by the monetary policy for the public sector. Additionally, the literature fails to integrate in its policy recommendations the constraints imposed on monetary policies by tensions and imbalances in financial markets. Finally, it also follows that the International Monetary Fund (IMF) and the World Bank (WB) PDM literature considers the role of private investors uncritically.

Following this introduction, this chapter is divided into three sections. The first discusses the different approach to public debt that emerged after the Keynesian Revolution. It argues that from this moment onwards the discussion on public finance

[4] The theoretical debate around the concept of public debt is intrinsically linked to historical developments. Changes in this debate are bound to transformation in the world's political economy, which results in different manners of dealing and managing public indebtedness. However, these historical aspects are not directly dealt with in this chapter.

turned to the question of how debt-financed public spending could raise levels of investment and lead to full employment, which in turn gave rise to the stabilisation role of fiscal policy. Studies following from this tradition have focused either on the study of debt burden, the crowding out effect or debt neutrality, which in turn consolidated a tradition that associates government bonds with fiscal policy, deficit spending and public indebtedness. The second section examines how monetary policy enters into this debate. It argues that the monetarist critique, the emergence of the New Keynesian school and the NCM contribute to give monetary policy a more prominent role while pushing fiscal policy to the margins. It is noteworthy, however, that despite the primacy of monetary policy, the discussion still fails to acknowledge the fact that government bonds have a monetary policy component that does not relate to budgetary needs or expansionary fiscal policy. The third section discusses the PDM literature. It argues that the relationship between government bonds and financial markets – as one independent of government expenditure deficits – has regularly been dealt with by the literature dealing with PDM, especially at the policy level. The section also critically assesses the PDM's focus on the need to develop the government bond markets, which in turn echoes the old economic debate arguing that economic growth and poverty reduction can only be achieved through financial development. The last section offers a conclusion synthesising the above discussion and highlights the need to turn to a different framework to examine to government bonds.

2.2. Debt burden, crowding out effect and debt neutrality: a new tradition

Studies on government bonds are frequently associated with public finance and public indebtedness. The discussion of the last two goes back a long way in the history of economic thought to when classical economists were dealing with the financial aspects of the government sector. These economists generally divided the topic into revenues, expenditures and debts.[5] Nevertheless, at the end of the 19th century, works focusing exclusively on public finance gradually reflected a narrowing of the subject, discussing mainly income and expenditure, and the adjustment of one to the other (Jain, 1989, p. 2).

The Keynesian Revolution is a benchmark in the debate over government bonds. It placed at the core of study the effects that bond-financed expenditures may or may not have on aggregate demand (AD) and then on real economic variables. Keynes'

[5] Jain (1989) argues that Adam Smith focused more on expenditures whereas David Ricardo and J. S. Mill concentrated more on revenue (p. 1).

approach made clear that government bonds are a tool for macroeconomic policy[6] which very frequently aimed at achieving full employment through a permanent enlargement of the public sector and associated public expenditures with an emphasis on public investment to prevent macroeconomic fluctuations. This positive approach to deficit expenditure derives from Keynes' *General Theory of Employment, Interest and Money* in 1936 (hereafter *General Theory*), where the author considers the role that these deficits play in maintaining output and employment, as demand-deficiency is a permanent problem in a modern capitalist economy due to unemployment of labour and capital (Keynes, 1937, p. 221).[7]

Keynes would dramatically change the approach to public finance and public debt. For Musgrave (1983), the critique of full employment and the idea that public dissaving, i.e., debt-financed public spending, could restore levels of investment and lead to full employment gave rise to the fiscal role of stabilisation (p. 10). This is a profound change in the focus of fiscal theory. The problem for the latter is no longer the shifting in resource use, but the concern with effects at its overall level. Budget policy became a critical determinant of the level of employment: "expansionary fiscal policy called for a sustained basis in order to maintain high employment in a mature economy" (Musgrave, 1983, p. 46).

Blinder and Solow (1973) argue along the same lines when stating that the Keynesian Revolution's most fundamental achievement "was the re-orientation of the way economists view the influence of government activities on the private economy" (p. 320). Before Keynes it was a commonplace that government spending and taxation were powerless to affect the aggregate levels of spending and employment in the economy; they could only redirect resources from the private to the public sector, which was an immediate corollary of Say's Law (p. 320).[8]

The Keynesian Revolution generated a vast literature on government deficit

[6] In this sense, public debt is an old institution in economic life. Nevertheless, public debt as a tool of economic policy is a much more recent event. See Goodhart (1988) and Kregel (1998).

[7] Essentially, in such economies, there is no automatic mechanism that coordinates investment and savings in such a way as to guarantee that the system will adjust to full-employment output (Keynes, 1937, p. 221). This is a direct criticism of the classical economic tradition dominant at the time.

[8] The Keynesian Revolution is also seen as a fiscal profligacy leading to increasing budget deficits. Buchanan and Wagner (1977) state that the "legacy or heritage of Lord Keynes is the putative intellectual legitimacy provided to the natural and predictable political biases towards deficit spending, inflation, and the growth of government" (p. 24). For them, the Keynesian Revolution ended the "traditional and time-honoured norms for fiscal responsibility" legitimising the deliberate creation of budget deficits on the principle that the "budget balance did not matter" (pp. 30-31). See also Bateman (2005). However, it is important to note that Keynes was rather cautious regarding the issuance of public debt. Keynes emphasised the importance of balanced budgets in the long term (Kregel, 1985, pp. 32-35). See also Brown-Collier and Collier (1995) and de Carvalho (1992).

expenditure and government financing, in which the debate over government bonds is part of a broader discussion. The works of Lerner (1943, 1951, 1970) and Domar (1944, 1945) are seminal, setting the grounds of this Keynesian approach to public debt. Domar's analysis emphasised the issue of debt burden, which is explicitly formulated in terms of "the tax revenue needed to service the debt relative to a nation's ability to pay". The problem of the debt burden indicates a failure in achieving a growing national income, so the quality and efficiency of public spending is crucial (Domar, 1945, p. 415), as economic growth is able to lighten the deficit and the public debt (Domar, 1944, p. 801). Lerner's development of "functional finance"[9] explains how the maintenance of full employment and stable prices becomes the only objective of fiscal policies, and how functional finance generates "an automatic tendency for the budget to be balanced in the long run" (Lerner, 1943, pp. 47–49).[10]

The focus on fiscal policy and issuance of bonds to restore levels of investments and employment is also strengthened, even if in the negative, by neoclassical synthesis,[11] which emerged with the seminal works of Modigliani (1944), Buchanan (1958), Diamond (1965) and Christ (1967, 1968). This literature started with a discussion on the reduction in the level of private capital formation precisely by the amount of the deficit-financed expenditure (Modigliani, 1944). Then it also presented a focus on the debt burden in terms of a claim on real income, i.e., a cost that is passed to future generations of taxpayers independently of the effects of debt on capital accumulation (Buchanan, 1958). The result is the concept of crowding out being formulated as not only resulting from the taxes levied to pay the debt interest, but also as resulting of reductions in per capita levels of output and consumption.[12] Thus, the debt burden becomes further and more intricately linked to the crowding-out of private capital, and an increase in government bonds becomes associated with a reduction in

[9] Functional finance involves either the use of taxation to ensure that taxpayers have less money to spend (if this is desirable), or the issuance of bonds and the borrowing of money, if it is desirable that the public should have less money and more government bonds. The second point relates to changes in interest rates. The purpose of issuing and extinguishing government debt is "to achieve the rate of interest which results in the most desirable level of [private] investment" (Lerner, 1943, pp. 41–43).

[10] Abba Lerner's Keynesian-inspired views on public debt are contested by scholars, with observations that Keynes himself considered Lerner's views to be radical, sometimes endorsing and other times repudiating them (Aspromourgos, 2014, p. 410). See also Colander (1984) and Brown-Collier and Collier (1995).

[11] The predominant approach to public debt within the neoclassical theory since Keynes results from the neoclassical synthesis and Neo-Keynesian school, but several theoretical developments, such as Barro's work, the Ricardian Equivalence, Lucas and the Monetarist critique and the emergence of New Keynesian school, have occurred since then (see below).

[12] Modigliani's (1944) paper gives the foundation of what would be the neoclassical analysis of the burden of the government debt. The latter will no longer be tied to the ratio of public debt to output and its dynamic sustainability, which was frequently seen in works following Domar (1944).

capital accumulation. In turn, in the long run, this results in reductions in per capita levels of output and consumption.

Diamond's work (1965) follows this notion of debt burden, providing a neoclassical view that highlights the long-term effects of public debt. Essentially, the effects of government debt depend crucially on assumptions about saving behaviour. In the long run, persistent government deficits could crowd out private capital accumulation.[13] Christ (1967, 1968) presents the concept of "budget constraint" in which government expenditure "must be equal to the total flow of financing from *all sources* (including printing money)" (1968, p. 53 emphasis in original). The budget constraint concept suggests the interdependence between fiscal and monetary policies, thereby imposing constraints upon the "government's freedom to choose arbitrary value of such policy variables as expenditure, taxes, net amount of borrowing from the private sector, and net amount of new money issued" (1968, p. 53).[14]

The government budget constraint concept is both a part of and (to an extent) the foundation of the recognition that bond-financed public sector deficits imply a cumulative growth of the outstanding stock of debt. This approach, under the IS-LM model, generated the "government budget literature", as Buiter termed it (1985, pp. 44–45), which is seen, for example, in the works of Blinder and Solow (1973), and Tobin and Buiter (1976). This would then consolidate the argument that future taxes are needed to finance government interest payments, which was clearly developed by Bailey (1962), Diamond (1965) and Tobin (1961). For de Haan (1987):

> [O]ne important issue in the government budget constraint literature is the possibility that interest payments create instability: bond issues will raise the component of interest payments in the budget and if other components of government spending are not reduced, the deficit which has to be financed by issuing new bonds will increase, thereby increasing the interest burden, etc. (p. 372)

Despite changes,[15] Christ's government budget constraint concept is basically

[13] Since then, the neoclassical proposition that the public debt crowds out private capital has been examined under various savings assumptions, which, overall, are influenced by changes in the interest rates in a context of sticky wages, prices and even information, and considering different time horizons. Unfortunately, an account of these analyses is beyond the scope of this chapter.

[14] With the budget government constrained, monetary and fiscal policy cannot be specified separately, and one variable will always be endogenously determined.

[15] Traditional models relying on the budget constraint principle consider the issuing of high-powered

the starting point for the developments within the New Keynesian school of models examining fiscal and monetary policy effectiveness, debt neutrality and debt sustainability. It is assumed by several neoclassical synthesis models that a type of intertemporal government budget constraint exists in principle (Blanchard, Dornbusch, & Buiter, 1985; Spaventa, 1987). It is also possible to argue that, in general, from this perspective, the principle of government constraint imposes a non-Ponzi game (Blanchard & Fischer, 1989, pp. 49–51; Buiter & Kletzer, 1992, p. 291). Finally, the government budget constraint concept relies on the idea of balanced budgets, and opens the way to studies examining the likelihood of governments violating their budget constraint (Blanchard, Chouraqui, Hagemann & Sartor, 1991) (see below).

Since the neoclassical synthesis, the wealth effect has been another element behind the debate over the public debt, which brings together a revised debate over Keynes effect and Pigou effect (Keynes, 1964, pp. 266–67; Patinkin, 1948, p. 552; Sawyer, 2009, p. 86). Essentially, government bonds are included in the wealth effect considering a few points: i) whether or not interest-bearing assets are perfect substitutes; ii) the deviation of one rate of return of these assets, which may result in portfolio shifts toward the asset with the higher return; and iii) the variation in prices of these assets in response to interest rates. The crowding out of private capital by deficit expenditure through the wealth effect associated with bond financing is clearly seen in Blinder and Solow (1974), Modigliani (1944) and Patinkin (1965). For this reason, the discussion of public debt (which is in fact the discussion of the effect of the public debt on the economy) is heavily focused on how government bonds are perceived by private agents.

This leads to another important contribution to the public debt debate which directly discusses government bonds, i.e., Barro's (1974) *Are Government Bonds Net Wealth?* For Barro (1974), much of the work in the field essentially assumes, directly or

money (Blinder & Solow, 1973; Buiter, 1983, 1985; Christ, 1967, 1968). Buiter and Kletzer (1992) summarise the discussion of works in which public deficits are eventually monetised, thus leading to inflation (p. 290). However, within the theoretical development following the New Keynesian School there is an exclusion of the possibility of financing the public deficit by issuing high-powered money, which is based on an assumption, and imposition, of non-monetisation of the deficit. In practice, the prohibition of public debt monetisation was one of the primary conditions imposed under central bank independence that gained prominence since mid-1980s. In the New Keynesian models, in general, the creation of additional money generates inflation in the medium-long run. In short, an increase in the supply of money results in an increase in aggregate demand. This in turn leads to a rise in the level of employment and, consequently, a rise in wages that then culminates in a price rise (Carlin & Soskice, 2005). Models following this tradition also rely on empirical evidence to justify the non-monetisation of the debt. See Blanchard (2002), for example, for the argument that monetisation is not a significant phenomenon in advanced economies as public deficits are largely financed by borrowing from the private sector; and Greiner and Finke (2009) for the argument that, since in most countries central banks are independent of governments, it is not possible to force the issuing authority to finance government deficits.

indirectly, that government bonds are perceived as net wealth by the private sector (p. 1096). However, for him, under perfect and imperfect capital markets, the net-wealth effect of government bonds does not exist or is close to zero.[16] Barro basically argues that individuals know that government expenditures must be matched by tax liabilities of equal value hence they internalise future tax obligations associated with bond financing. As a consequence, deficit expenditure, whether tax or debt financed, has no effect on AD, interest rates, and capital formation (p. 1116).

Barro's (1974) argument relies strongly on the Ricardian Equivalence proposition (RE). Ricardo is credited as being the first to recognise the possibility that the choice of method of financing a given government expenditure programme would have no real effects if there were no capital market imperfections[17] and if taxes were non-distortionary. The RE basically concerns the neutrality of bond versus tax financing of government spending with respect to real economic variables.[18] The government can finance its expenditure through taxes or issuing bonds, but since bonds are understood as loans that must be paid off, the latter option means nothing other than raising taxes in the future, so savings will have to be put aside in order to afford future tax rises. Therefore the aggregate demand would suffer the same effects as if the government had chosen to tax now. RE's influence in the theory of public debt has been significant, especially since Barro (1974).[19] Its policy message is that bond-financed fiscal policy is likely to be relatively ineffective.[20]

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[16] Barro (1974) shows that there is no persuasive case for treating government debt as a net component of perceived wealth as the argument for negative wealth effects seems to be as convincing as the argument for positive wealth effects (p. 1116).

[17] To assume the existence of a perfect capital market is to acknowledge the ability of individuals to borrow and save, and the fact that these individuals will save for a future tax increase even if they will not be part of the future generation.

[18] The neutrality of the debt in Ricardo is also challenged by contradictory passages on his own work. Compare Ricardo (1951a, pp. 244–245) with Ricardo (1951b, p. 187). Pasinetti (1989) argues that Barro (1974) took Ricardo's assumptions much further. Studies following Ricardo "introduced further (more restrictive) hypotheses on individuals' behaviour. They have assumed utility maximisation over time so as to transform Ricardo's Equivalence Theorem into a (more stringent) 'Neutrality Theorem', according to which ultra-rational individuals would adapt their savings behaviour over time so as to compensate for any type of government tax or debt policy" (p. 33).

[19] See Aiyagari (1987), Bohn (1992), Buiter (1980, 1990), Buiter and Tobin (1978a, 1978b), Carmichael (1982), Elmendorf and Mankiw (1998), Feldstein (1976, 1988), Gale and Orszag (2002), Leiderman and Blejer (1988), Leiderman and Razin (1988). The influence is also perceived in the opposite direction, that is, within neoclassical theory there is a vast literature criticising the RE. The major arguments against the RE are due to the unrealistic assumptions on which the theory is based. See Bernheim and Bagwell (1986), Blanchard (1984), Blanchard and Fischer (1989), Buiter (1990), Daly and Cobb (1994), Hubbard and Judd (1987) and Tobin (1982). Obviously, the main opponents to the RE come from the post-Keynesian literature. Public debt neutrality does not have a prominent space in this literature as deficit expenditure generally results in a crowding in effect, and the RE is dismissed on several theoretical grounds. See Arestis and Sawyer (2003, 2006), Eisner (1989) and Sawyer (2009).

[20] For more details see Palley (2013, pp. 182–183).

Barro's (1974) RE not only systematised the discussion within neoclassical theory on debt neutrality[21] (which vitiates the non-zero wealth effect), but it also supported many of classical economists' assumptions that government spending, whether financed by tax or debt, had no effect on aggregate levels of spending and employment in the economy. In the context of the Lucas critique, which basically challenged the neoclassical synthesis models because their outcomes change according to different economic policies (Lucas, 1976, p. 41; Sargent, 1987, pp. 397-398) and advocated in favour of an economic analysis that primarily considers the parameters that govern individuals' behaviour, i.e., the microfoundations (Lucas, 1976, p. 21), Barro's ideas contributed to the inclusion of the assumption of rational expectations into the debate on public debt. Despite criticisms, the microeconomic channels of fiscal policy based on Barro's (1974) RE and its fusion with the Lucas critique have dominated much of the debate surrounding fiscal policy effectiveness and public debt since the mid-1970s (Palley, 2013, p. 182).

Despite differences between the traditions mentioned above, this initial debate on government bonds, within the context of deficit expenditure and public debt, shows a clear association between government bonds and fiscal policy. The debate of the debt burden involved of the ratio of public debt to output, the ratio of taxes required to pay the interest on the public debt to output, crowding out of private investment, and debt neutrality. As a consequence, it is a discussion of government bonds that passes through resource allocation and influence on interest rates in the capital markets,[22] but focuses on outcomes regarding employment of capital and labour, and on the sustainability of the debt in terms of the constraint that the latter can bring to fiscal policy.

Overall, these approaches make evident that government bonds establish a link between the public and private sectors and allow the state to intervene in capital markets. The link and the intervention may well be used to understand the chains of relations between increase in government debt, changes in consumption relative to savings, changes in interest rate, and, finally, changes in the fraction of output which goes to capital accumulation. However, this is only a partial view of the functions of these bonds in capital markets, which, for example, contribute to government financing being susceptible to manipulation by the will of the private sector, which in turn may result in constraints and changes in the state's management of its finances.

The debate on government bonds therefore follows and is embedded within this

[21] For a discussion on debt neutrality, see also Cavaco-Silva (1986) and de Haan (1985).
[22] This is clearly visible in Modigliani (1944) and Diamond (1965).

tradition of bond-financed expenditure, expansionary fiscal policy and public indebtedness, which leads to the idea that it is impossible to examine public debt, and therefore government bonds, without discussing and calculating multipliers, or without considering the RE and debt sustainability. This is closely related to what O'Connor (1973) defined as a "simplistic" approach to public finance (p. 5):

> Currently, economists do not consider the actual determinants in their theoretical models but rather restrict themselves to estimates of the volume of state spending necessary to effect desired changes such as high employment or more rapid accumulation or growth. Their premise is that the government budget should and can be increased or lowered to compensate for reduced or increased private spending. (p. 5)

This is not an attempt to undermine the works that follow this tradition: the debate that unfolded from it is not only vast, but complex in a different fashion.[23] In the first place there is the question of which theoretical framework is used, that is, the macroeconomic presumptions. The effect of any government spending on AD and the subsequent effects of AD on real variables may not even exist depending on the chosen macroeconomic framework. Secondly, there is the question of the microeconomic channels through which agents or classes[24] respond to fiscal policy and its aggregate demand and supply effects. Closely related to this, there is also the question of the different effects of tax changes or government spending on the economy, and the different impact of the latter given different types of financing, i.e., bond or money-financed;[25] in turn, this involves the issue of different views on money.[26] The analysis will also vary according to the timeframe (long or short term). Finally, aspects such as the nature of government expenditure,[27] internal/external debt, open/closed economy

[23] See Palley (2013) for an overview of this complexity.
[24] The approach to public debt from a neoclassical perspective has a focus on individual utility maximisation (utility function). The post-Keynesian tradition accounts for classes and distribution of income.
[25] Many of the different levels of crowding out arise out of the type of financing. The issue of how the budget deficit is financed is therefore of critical significance for this literature, as the method of financing the debt has a clear impact on the stock of bonds and money, which is then the focus of several works on the crowding out effect of public debt. Nevertheless, the key issue is not so much about the choices between bond-financed, money-financed and tax-financed, but how these three interact and affect one another.
[26] Clearly, the issue of views on money is related to the macroeconomic framework as well.
[27] The attention paid to the effects and composition of public expenditure, in particular public investments, within neoclassical economics can be seen in the works of Arrow and Kurz (1970), Aschauer (1985, 1988, 1989b, 1989a), Barro (1990), Barro and Sala-I-Martin (1992), Buiter (1990) and

and inflation can also strongly influence the analysis.

Thus, after the Keynesian Revolution, the government bonds' debate became intertwined with several other key issues regarding the study of public finance. Nevertheless, although it is indeed a much broader analysis than the mere adjustment between income and expenditure, this has rather narrowed down the understanding of how government bonds are used as a tool for macroeconomic management. It is rare to find in this debate a direct and specific discussion on whether government bonds assume an even broader role for achieving a sound economy and, therefore, on their use as an instrument for devising monetary policy and consolidating the financial system, which is the main interest of this thesis. The question of monetary policy and issuance of government bonds is very relevant: in countries like Brazil the cost of monetary policy can clearly be understood as a government expenditure leading to a burden for the government in the same fashion as the traditional approach to fiscal policy and bonds. The next section explores how monetary policy enters into this debate of deficit expenditure and public debt, and the consequences for the debate on government bonds.

2.3. Monetary policy and government bonds

Musgrave (1983) argues that the fiscal role of stabilisation came to be integrated with monetary policy in the neoclassical models of the 1950s, "with both tools of stabilization policy effective in their own way, and the selection of the policy mix serving to reconcile considerations of high employment, growth, and foreign balance" (p. 10). Godley and Cripps (1983) state that monetary analysis during the period following the Second World War did not matter much. Despite the constant criticism by the Monetarist school, "the monetary challenge was not very effective when economic performance was generally accepted to be satisfactory". The deterioration of economic performance at the beginning of the 1970s would change this, and monetarism would have its revenge, at least for a short period (p. 14). Both views indicate that the integration did not necessarily mean an approach to government bonds that distanced itself from the effects on AD and so on.

Munnell (1990). Public capital accumulation is modelled in Arrow and Kurz (1970) and Buiter (1990) by the inclusion of services in the production function; for example, Aschauer (1989), Bhatta and Drennan (2003) and Munnell (1990) bring empirical evidence showing the positive effect of public capital on private sector productivity. In Barro's (1990) growth model, public debt policy is irrelevant (see below), thus public investment may not only result in 'positives externalities' that crowd in private capital, but also results in a permanent increase in the rate of growth of per capita consumption. More recently, in Aschauer (2000), there is a clear assumption of a growth rate unaffected by public investment based on the argument that the positive effects that these investments can have on an economy's productive capacity and its growth are neutralised by the negative effect produced by taxes.

Three events allow for a closer examination of how monetary policy enters into the debate of deficit expenditure and public debt: the monetarist critique, the emergence of the New Keynesian school and the NCM.

Despite regarding both bonds and money as net wealth, the monetarist critique of the neoclassical synthesis, relying on the crowding out argument and IS-LM model, argues against a positive effect of a fiscal policy and advocates for a focus on monetary policy, which indeed seems to be neglected by early neoclassical models after the neoclassical synthesis, as Musgrave (1983) argued. The critique considers that control of money supply has a larger effect on output in the short term and on price levels in the long term.[28] In more specific terms, monetarism argues in favour of a monetary policy that targets the growth rate of the money supply rather than engaging in discretionary monetary policy (Cagan, 1989, p. 201). The challenge to the effectiveness of fiscal policy and to the idea that fiscal policy was an effective instrument for economic policy[29] not only strengthened the argument that government bonds crowd out private capital (Friedman, 1974, p. 142), but also made more evident the complex relations between fiscal and monetary policy.[30]

It can be argued that the monetarist critique led to neoclassical models giving attention to the case of accommodating or non-accommodating monetary policies. For example, when considering the changes in government spending and taxes, and then the usual impact of the Keynesian multipliers, the latter may be smaller with non-accommodating policies, as the supposed fiscal expansion leads to a rise in interest rates and crowding out of private investment (Buiter, 1985, p. 55). The critique also gave more substance to the discussion on the different long-term effects on aggregate demand resulting from whether deficits are bond-financed or money-financed (Blinder

[28] See Andersen and Jordan (1968) and Friedman (1956, 1959, 1966). de Haan (1987) argues that the Monetarist attack was underpinned by a "different empirical assessment of the central parameters in the Keynesian model" (p. 371). Along the same lines, for Wray (2015), "'the great debate' between 'Keynesians' and monetarists was reduced to differences over parameters (interest rate elasticity of investment and income elasticity of money demand) and policy prescriptions (discretionary interest rate targets or money growth rules)", which in turn contributed to easily integrated Friedman Monetarism within the Neoclassical Synthesis (p. 49).

[29] There are empirical studies inspired by the methodology of Friedman and Meiselman (1963) showing the impotence of fiscal policy. See Andersen and Jordan (1968), Carlson (1978) and Hafer (1982). However, interestingly, these studies are not accepted by non-monetarist authors on the grounds of differences regarding model specifications and estimations. See, for example, Batten and Thornton (1986) and Modigliani and Ando (1976).

[30] As de Haan (1987) argues, "Friedman's argument on the importance of stocks rather than flows led to the extension of traditional IS-LM models with wealth effects and the government budget constraint to see how the initial effects of fiscal and monetary policy are modified by subsequent stock adjustment" (p. 371-372). For de Haan (1987), Blinder and Solow (1973) and Tobin and Buiter's (1976) seminal papers are, in fact, a reflection of this Monetarist critique (pp. 371- 372).

& Solow, 1976, pp. 505–506). Lastly, it made more evident the case of open market purchases. Blinder and Solow (1976), for example, consider that these are necessary to withdraw money or bonds to finance any budget surplus resulting from an increase in government spending, and these operations have effects on aggregate demand (p. 506).[31]

The Monetarist critique together with the Lucas critique led to changes in models examining public debt within the neoclassical framework, which were then placed in the New Keynesian school. Interestingly, the New Keynesian models on public debt represented much more of a revival of classical macroeconomics, as elaborated by Sargent (1979), with little Keynesian influence. That is, output is equal to full employment, so fiscal policy can affect AD, but AD cannot affect output. Therefore, fiscal policy operates via price levels and interest rates only. Uncertainty and rational expectations with perfect foresight are fully introduced to these models and, to a certain extent, there is a rejection of monetarism, as the neutrality of money is reasserted in the short run. They differ from new classical models in that there is a price rigidity that is justified by the existence of monopolistic competition.

Overall, any fiscal policy is systematic and anticipated. Thus, it is incorporated into expectations of AD increase. This AD then determines "the initial price level and nominal wage, and it has no impact on output because anticipated policy does not affect the MPL, MRPL, or labor supply function" (Palley, 2013, p. 197).[32] So essentially, fiscal policy in the form of debt-financed government expenditure does not matter, and the RE is somehow felt, as taxpayers know they will have to pay down government's debt later so they begin saving immediately. In short, government spending is crowded out. However, because prices do not adjust instantaneously, there is a window in which firms cannot change their prices. It is at this moment that bond-financed deficits increase output and employment. Price level is constant and nominal, real wages increase and changes in the interest rates depend on accommodating monetary policies. Money-financed deficit follows the same changes, but the effect is greater than bond-financed. Either way, "when firms can reset prices they do so such that the economy reverts to natural output" (p. 197).

[31] Infante and Stein (1976) contest this result. See also Tobin and Buiter (1976, pp. 26-29) for open market operation and effect on AD.

[32] In these models, "firms are imperfectly competitive so the marginal product of labor function (MPL) is accompanied by a real marginal revenue product of labor schedule (MRPL). Firms choose an employment level where the MRPL equals the real wage (w/p)" (Palley, 2013, p. 195).

The concept of intertemporal government budget constraint, which has changed since the earlier works of Christ (1967, 1968), is also seen within the New Keynesian school and brings several changes to the fiscal role of stabilisation. Overall, it is assumed that the only non-tax financing option available is to issue interest-bearing government bonds,[33] and the latter are one-period bonds with a fixed price and variable interest rate. In this light, an identity between the flow of government expenditure and its methods of financing is summarised by the dynamic government budget constraint in which the changes in the quantity of bonds issued equals the primary deficit plus interest on the debt plus the new bond issuance. Within a steady-state rate of growth, which is characterised by a common rate of growth for all relevant economic variables and by a real interest rate higher than the economy's growth rate, a steady-state tax revenue must cover the sum of expenditure and the excess of interest payments. Thus only a primary surplus is consistent with a steady-state rate of growth.

In other words, if the economy's growth rate is lower than the interest rates, the government runs primary surpluses through increasing taxes or reducing expenditure.[34] This is a way to impose a long-term restriction on the government's choices for fiscal policy – as is argued, for example, in Tobin (1989). Equally importantly, the government budget constraint serves to give fiscal policy an endogenous element when considering an indefinite time horizon. As long as the rate of interest on government bonds is greater than the long-term rate of growth, the government cannot generally borrow indefinitely to service its debt. The models starting with the government budget constraint concept also assume that the economy's growth rate is exogenously given and, in particular, is independent of public spending.

The New Keynesian school and its theoretical development shows a scepticism towards fiscal policy and the issuance of government bonds, especially when it comes to effects on AD and on outputs. The scepticism is further exacerbated with the NCM (Meyer, 2001; Woodford, 2009),[35] which leads to a kind of inversion of the roles of monetary and fiscal policy. The NCM elevated monetary policy to a more prominent role, while downgrading fiscal policy to a mere supporting role, if any role at all. Essentially, given an output gap, i.e., a difference between potential and actual output, as well as a deviation from actual inflation and targeted inflation, a strategy known as

[33] As discussed above, there is an exclusion of the possibility of financing the public deficit by issuing high-powered money, as the Central Bank Independence argument gained prominance.
[34] This rationale is what is behind the argument on how the ratio of public debt to GDP can be stabilised or reduced. See Chapter 6 for the case in Brazil.
[35] For a critique, see Sawyer (2009) and Skidelsky (2010).

the Taylor rule[36] is followed in which the central bank would adjust its interest rate target. This adjustment, in turn, guarantees the equilibrium between planned savings and planned investment.[37] This control of the money supply through control of the interest rate is different from Friedman Monetarism's control of money supply via central banks.

That is not to say that the fiscal policy has been totally discarded by New Keynesian analyses. In fact, in models based on government budget constraint, the stable equilibrium also yields crowding out of private capital, and therefore these models are still debating over the wealth effects that might be associated with a bond-financed government expenditure policy. There is a great number of works empirically verifying the consumption and investment responses to deficit expenditures, but the results have been highly contradictory because the findings depend on the models' specifications and assumptions that, in turn, are tied to different assumptions regarding the government budget constraint. The different specifications and assumptions have also continued to contribute to a recurring heterogeneity in the magnitude of the estimated output multipliers within these models.[38] Recent works, such as Coenen et al. (2012), Hall (2009) and Woodford (2011) have questioned the crowding out effect and argued that government expenditure may induce a modest effect on aggregate demand, and then in the short term these effects could be augmented with provisions for future spending cuts, accommodative monetary policy and attention to pricing frictions. There is also a New Keynesian literature dealing with government expenditure in a context of zero lower bound (ZLB) and (in)efficacy of monetary policy. [39]

[36] The Taylor rule is a feedback rule used by the central bank to adjust its policy instrument (nominal interest rate and policy rate) to meet its policy target (primarily price stability).

[37] For a recent discussion on the accommodating role of monetary policy in a context of deficit expenditure, see Hall (2009) and Woodford (2011). Essentially, these authors consider the case of an inflationary outcome given increases in government spending. In this case, monetary authorities should react through inflation targeting regimes or the Taylor rule, so that the real rate of interest increases, which then leads to an increase in private savings. This strong reaction by the monetary authority is considered necessary, otherwise the real interest rate may fall, stimulating both consumption and investment expenditure and causing inflation.

[38] The literature within the New Keynesian school examining the fiscal multipliers is vast, especially after the Global Financial Crisis of 2007/08, and uses a wide range of different data sets, econometric techniques, and economic models. See Barro and Redlick (2009), Blanchard and Perotti (2002), Burnside, Eichenbaum and Fisher (2004), Caldara and Kamps (2008), Christiano, Eichenbaum and Rebelo (2011), Cogan, Cwik, Taylor and Wieland (2009), Davig and Leeper (2011), Mountford and Uhlig (2009), Perotti (2007) and Romer and Romer (2010). There is also a literature on the field of fiscal consolidation, that is, reducing government deficits, i.e., fiscal austerity, being expansionary; see Alesina and Ardagna (1998) and Giavazzi and Pagano (1990).

[39] See Christiano et al. (2011) and Erceg and Lindé (2010). The recent literature discussing the effectiveness of fiscal policy at the ZLB can be considered part of the capital market imperfection critique of the RE approach. In Christiano et al.'s (2011) work, ZLB, a situation in which the nominal interest rate is at or near zero, can be considered as representing capital market imperfection.

Overall, what these three developments, i.e., the Monetarist critique, the New Keynesian and the NCM, reveal is a clear shift from fiscal to monetary policy to manage the imbalances of the capitalist economy. Fiscal policy ineffectiveness is no longer framed only within the RE approach based on unchanged net wealth and consumption possibilities, but within a dispute between fiscal and monetary policy, and the respective intensities of their multipliers and crowding out effects. The Monetarist critique certainly marked the beginning of this shift,[40] the New Keynesian strengthened it and the NCM consolidated it.

The literature contesting this shift, discussing the issue of monetary versus fiscal policy and arguing for the effectiveness of the latter is significant. It can be traced back to Godley and Cripps' (1983) stock and flow analysis. See also Arestis and Sawyer (2003, 2006), Godley and Lavoie (2007), Godley and McCarthy (1998). Arestis and Sawyer (2003) particularly focus on the (non)effectiveness of monetary policy within the NCM, i.e., Taylor's rule and control of interest rates. Since the financial crisis of 2007, there has been a reassertion of fiscal policy as a tool that can help to create the conditions necessary for high levels of employment. See Arestis (2009), Arestis and de Antoni (2009), Arestis and Sawyer (2010), Davanzati, Pacella and Realfonzo (2009) and Sawyer (2009)). To a certain extent, the fiscal policy revival is also seen in the literature relying on Minsky's concept of "employer of last resort" (see Harvey (1989), Kelton and Wray (2004), Wray (2006, 2011).

The alleged primacy of monetary policy and the mainstream view on this is explained and summarised in Leeper's (2010) work. According to the author, monetary policy decisions are based on systematic analysis of alternative policy choices and their associated macroeconomic impacts. That is, in his view, monetary policy, unlike fiscal policy that springs from unsystematic speculation and is grounded more in politics than economics, is a science.[41] The progress of monetary policy in this sense is marked by

> modeling dynamic behavior and expectations, understanding some of the critical

[40] As Blinder and Solow (1973) argue, after the Keynesian Revolution, the old view that government spending simply crowded out private spending was challenged, even banished, and at the same time the question arose: does monetary policy matter? Then, in the 1970s, with the revival of the quantity theory of money under the name of 'monetarism', the belief in the power of monetary policy was renewed and there was a resurgence of interest in the crowding-out effect. Then, the new question appeared to be: does fiscal policy matter? (pp.1-3). The 'new quantity theorists' affirm that fiscal policy is powerless, i.e., "the multiplier for bond-financed government spending is zero" (p.4). See Blinder and Solow (1974, p. 502), for a critique of this multiplier outcome.

[41] See also Clarida, Gali and Gertler (1999), who proclaimed the arrival of 'the Science of Monetary Policy'.

> economic frictions in the economy, discussing explicitly central banks' objectives, communicating policy intentions to the public, developing operational rules that characterize good monetary policy, and deriving general principles about optimal monetary policy. (Leeper, 2010, p. 3)

Equally emphasised by Leeper is the fact that the "practice of monetary policy marched alongside the theory" and "central banks around the world have adopted clearly understood objectives—such as inflation targeting and output stabilization—and central bankers espouse and articulate the science in public discussions about managing expectations, the transmission mechanism of monetary policy, and the role of uncertainty in policymaking" (p. 3). For Leeper (2010), no such transformation happened to macro-fiscal policy, which still relies on Keynesian hydraulics and multipliers. Questions of the size of fiscal multipliers and detailed analysis of unsustainable fiscal policy should, according to Leeper, be conducted with explicit analysis of expectations and dynamic adjustments. Otherwise, it is alchemy (p. 4).[42]

Nevertheless, despite the primacy and alleged scientificity of monetary policy, the vast majority of these analyses fail to directly consider that government bonds, and therefore public indebtedness, have a monetary policy component that does not relate to budgetary needs or expansionary fiscal policy. Moreover, again the relationship between issuance/purchase/selling of government bonds, monetary policy and capital market functionality is not explicitly placed within this literature on public debt. The focus, following the traditional discussion in the previous section, is on directing the economy to full employment of labour and capital. The difference now is that monetary policy is a better tool to accomplish this goal, and public indebtedness is further scrutinised within a government budget constraint identity that clearly relies on the idea of balanced budgets and opens the way to studies examining the likelihood of governments violating their budget constraints. It is from this perspective that the issue of running a budget deficit is currently placed – and thus the limit on the size of the deficit, i.e., its sustainability.[43] Blanchard et al.'s (1991) work is seminal in this respect.

[42] Leeper (2010) does acknowledge progress in fiscal policy, especially in the field of public finance and optimal fiscal policy, see, for example, Golosov, Tsyvinski and Werning (2007) and Kocherlakota (2010)) and when examining the impacts of alternative fiscal rules that ensure policy is sustainable, see, for example, Bryant and Zhang (1996).

[43] See Chalk (2000), Chalk and Hemming (2000) and Chalk and Tanzi (2002). More recently, despite the controversial debate over data set errors, Reinhart and Rogoff (2009) also reignited the debate on the sustainability of public sector debt from the perspective of debt to GDP. They essentiality argue that once the public debt to GDP ratio crosses a 90 percent threshold, economies experience significant growth

It basically argues that "a *sustainable fiscal policy* can be defined as a policy such that the ratio of the debt to GNP eventually converges back to its initial level", and this is possible if a government which has outstanding debt anticipates sooner or later running primary budget surpluses (pp. 11-12 emphasis added).

The shift towards monetary policy within this tradition – focusing on the effects on AD and outputs and associating government bond issuance with fiscal policy – is also based on a type of separation between fiscal and monetary policy that is highly complicated, and, among other things, confirms how government bonds, as an element of monetary policy implementation, are not explicitly discussed. For example, the case for accommodating monetary policy, especially when bond-financed deficit may cause variation in interest rates or inflation, is one proof of the inseparability between fiscal and monetary policy, but not the only one.[44]

Putting aside the discussion of the calculation of the multiplier effects for each monetary and fiscal variable, a relevant point which should be addressed is the extent to which money and bond-financed deficit can be independent of each other. For example, assuming the possibility of money-financed fiscal policy, this may be combined with expansionary fiscal policy (Tobin and Buiter, 1976, pp. 29-32), or it may be the case of indirect money-financed deficit in which the central bank finances the government deficit by buying bonds that have been previously purchased from the government (Palley, 2013, p. 185).[45] The second case makes it difficult to talk about pure money-financed fiscal policy. Money-financed deficit may also be the result of 'one shot open market purchase' (a kind of money-for-debt substitution) (Tobin and Buiter, 1976, pp. 26-28); or the result of open market purchases withdrawing money or bonds to finance any budget surplus (Blinder and Solow, 1976, p. 506); or money-financed tax cuts leading to defensive open market operations to keep the interest rate at its target (Palley, 2013, p. 189). All these examples show that the idea that budget deficits can be financed

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slowdowns. See also Reinhart and Rogoff (2010) and Reinhart, Rogoff and Savastano (2003) for indebtedness and lenders intolerance.

[44] Cases for accommodating the role of monetary policy in a context of deficit expenditure were mentioned above (see also Palley (2013), pp. 184-185, for example). Money financing may be a government decision or a consequence of bond-financed deficit in a context of target interest rates. Bond-financed budget deficits may cause variation in the interest rates, which then induce central banks to, in the case of rising rates, for example, conduct expansionary open market operations and buy bonds to prevent these rates from rising. For Palley (2013), "interest rate stabilizing bond purchases implicitly money-finance budget deficits and reveal how fiscal policy is connected inseparably to monetary policy under current policy arrangements" (pp. 184-185).

[45] Direct and indirect money-financed deficit are often placed together and referred to as printing money, but there is a difference. Generally, in the former, direct money finance-deficit, central banks simply credit the government's bank account with new money to cover its spending. In the latter, government bonds are traded.

exclusively either by money or bonds is complicated – and reinforces the inseparability between fiscal and monetary policy.

For Arestis and Sawyer (2010), "the central bank (in normal times) provides reserves to the banking system in exchange for government bonds, and it is only at the point where government bonds are exchanged in this way for reserves that the government deficit could be said to be money financed or monetized" (pp. 340-341).[46] In Godley and Cripps' (1983) work, an approach that considers the idea of endogenous money, OMOs are necessary to regulate the increase in money supply resulting from the increase in the aggregate national income/expenditure flow that government expenditure generates. The authors also state the importance of monetary policy in determining bonds' prices and yields, which in turn is crucial for both the non-bank private sector and commercial banks when considering the composition of their portfolio of assets (p. 160). This last aspect makes Godley and Cripps (1983) an exception in the discussion of government bonds.[47]

Arestis and Sawyer (2010), Godley and Cripps (1983) and Godley and Lavoie's (2007b) approaches lead to another point related to the inseparability of fiscal and monetary policy, which is not directly linked to combined fiscal and monetary policy or consequences of a bond-financed deficit, i.e., accommodating monetary policy, but with different views on money. Within the post-Keynesian literature, which differs from neoclassical economics, the question of different methods of financing government deficit expenditure presents itself in a very different fashion due to the Keynesian theory of endogenous money. The latter basically holds that the money supply is determined by the banking system and that the demand for money depends positively on output, i.e., transactions for money, and negatively on interest rates. In this context, for example, when the effects of government deficit expenditure are felt in increases in income, bank lending and demand for transactions balance, the monetary authority via open market operations steps in to offer additional reserves to not only maintain the interest rate at its target (if there is one), but also to ensure banking sector solvency.[48] In this sense, fiscal policy is a mixture of money and bond financing (Palley, 2013, p.

[46] For more details on the expansionary effect of money-financed deficit, see Palley (1997).
[47] See also Godley and Lavoie (2007b).
[48] In context of endogenous money, a less than full employment situation in which savings and investments are not in equilibrium can be adjusted by interest rate manipulation via monetary policy to ensure high levels of economic activity. In this case, "monetary policy can guide aggregate demand to match supply provided that interest rates are effective in influencing the level of demand and provided that the Central Bank's calculation of the equilibrium rate of interest is accurate". Then, it could be argued, little room would exist for fiscal policy. However, in an absence of such potent monetary policy, fiscal policy, and therefore, budget deficits have a role to play (Sawyer, 2009, p. 86).

189).[49]

Thus the separability versus inseparability of fiscal and monetary policy is definitely an important issue in this discussion of government deficit and public debt, and a great part of the argument is built upon government bonds and their ability to control money supply and capital market liquidity via OMOs. Still, the cases of fine tuning, accommodating policy, combined fiscal and money deficit, indirect money-financed deficit, regulation of money supply and so on are very much focused on the fiscal policy case, and again on its effect on AD and outputs. Although the discussion passes through controlling interest rates, OMOs and capital market liquidity management, a direct discussion of government bonds performing these functions does not take place. In short, the use of government bonds as a tool for monetary policy is not directly debated by the literature discussing deficit expenditure and public debt, and government financing.

So again the link between monetary policy and bonds issuance (especially considering the costs of monetary policy for the public sector) is still feeble, even when the discussion shifts to emphasise the role of monetary policy. In this way, the association of debt with mainly fiscal policy and issuance of bonds remains unchallenged. It is as if the focus on how deficit expenditure debt may affect the allocation and distribution of resources and the stabilisation function of government creates a blind spot when it comes to the discussion of government bonds as an instrument for devising monetary policy and consolidating the financial system. This perception is further exacerbated by the Monetarist critique, the emergence of New Keynesian school and the NCM.

2.4. Government bonds as key for the development of the bond market

The relationship between government bonds and financial markets as one independent of government expenditure deficits, however, is not totally unacknowledged. It has been constantly debated (especially at policy level) by the literature dealing with PDM, which has encouraged the development of the government bond market. Interestingly, for this literature, the outcomes achieved with the

[49] Davidson (1978) presents a similar argument when discussing Monetarists, and revisiting the concepts of financial motive and congestion as elaborated by Keynes. The former essentially makes clear the interdependency of real and monetary sectors. The latter explains the extent to which fiscal policy is actually dependent on money supply. If decisions to invest are increasing, extra finance leads to additional demand for money. This in turn causes congestion in the money market as it depends on bank, and not public saving, to provide endogenous additional finance (pp. 54-55).

development of the government bond market "are all essential ingredients to ensure sustainable growth, support the productive sector and fight poverty" (Silva et al., 2010, p. 9).

In this sense, the background of this policy is the idea that economic growth and poverty reduction can be achieved just through financial development – which has been one of the most debated topics in economics literature over the past two decades. The debate goes back a long way, starting with McKinnon's (1973) and Shaw's (1973) arguments against "financial repression" in developing countries, Stiglitz's imperfection hypotheses critique of the mechanics of financial markets (Stiglitz, 1994, 2000a; Stiglitz & Weiss, 1981) and the emergence of the concept of "financial development" (King and Levine, 1993; Pagano, 1993; Levine, 1997) to the link between finance and poverty reduction and lowering income inequality (Beck, Demirgüç-Kunt, & Levine, 2007; Dehejia & Gatti, 2005; Honohan, 2004). At the end of this journey, the key goal has become to ensure that financial development can be accessed by all parts of society, shifting the focus to "access to finance".

In Pedras (2010), for example, a work that relies heavily on the IMF/WB PDM literature, two of the four objectives that justify the existence of public debt are related to the dynamics of the financial markets. According to him,

> four basic objectives justify the existence of public debt: (1) financing public deficit; (2) providing instruments for implementing monetary policy (in the case of domestic debt); (3) establishing long-term benchmarks for public sector funding, since public issuances, given their high volume and lower credit risk, serve as reference for private debt pricing; and (4) allocating resources among generations, insofar as (depending on the maturity of funding instruments) future generations will pay for today's expenditures (funded through debt). (p. 53)

Clearly the majority of discussion in the previous two sections, and therefore the main works discussing public debt within the academic literature, is concentrated on the first and fourth objectives, which may be associated with financing fixed capital formation, depending on the assumptions made on types of investment, and/or with managing unfavourable macroeconomic conditions.

The different perspective on public debt can also be seen in Silva, Carvalho and

Medeiros' (2010) argument that government bonds,

> are essential to central banks which use them daily to control market liquidity and stabilize the currency. Also, they are vital to the private sector, since they serve as key benchmarks for issuing corporate bonds. Thus, a well-developed public and corporate bond market can improve a financial system's efficiency in allocating funds and stabilize a country's finances and macroeconomy. (p. 17)

The issue of debt management from the perspectives above has been prominent in institutions such as the World Bank since the late 1980s. At the core of the PDM strategy is the process of establishing and executing a plan "to raise the required amount of funding at the lowest possible cost over the medium to long run, consistent with a prudent degree of risk" (IMF & World Bank, 2014, p. 11). Costs are associated with interest and amortisation payments. Risks are related to the economic burden of servicing and repaying the debt. The latter could distort fiscal policy and may even lead to default (Wheeler, 2004, p. 31-32). It is argued that, without an integrated approach to debt management, government financing decisions "were often politically motivated or were based on achieving the lowest annual debt-servicing cost regardless of portfolio risk" (Wheeler, 2004, pp. 1-2).[50]

Considering the cost versus risk issue, Missale (1999),[51] for example, highlights three objectives that the government issuance and management of public debt has to reconcile, given government borrowing requirements and debt refinancing needs. These are: i) minimising debt service costs over the medium and long term; ii) minimising risk, which could be measured in various ways; and iii) supporting the development of capital markets, which is manifested in maintaining liquid bond markets. As trade-offs between these objectives may exist, governments are expected to determine a prudent level of risk first and only thereafter focus on lowering costs.[52] Missale also argues that Barro's (1974) work invigorating the RE laid out one of the major cornerstones of PDM through the concept of PDM neutrality.

That is not to say that this aspect of public debt has not been discussed in

[50] This type of public management approach has been adopted by the Brazilian government since 2001, and is also frequently adopted and discussed by the mainstream literature. Surprisingly, the cost *versus* risk has also been uncritically discussed/assumed by the heterodox literature in Brazil. See Chapter 6.
[51] See also Chan-Lau and Santos (2010).
[52] The IMF and World Bank (2005) guidelines, which have also been adopted by the Brazilian government, rely on this framework (see below).

academia; the issue of cost and risk can be traced back to Tobin (1963). The debt management issue also goes back to the anticyclical character of the state in market economies, in which government expenditure (that is, government deficit), together with a monetary policy that keeps the interest rates low, is able to reverse unemployment situations that are considered common to market economies. Within this context, it is argued that monetary authorities have to manage the best combination between currency issuance and government bonds of different maturities in an attempt to keep the cost of financing the government as low as possible without affecting monetary stability.

Okun's (1967) work is seminal in this sense and is still present in the PDM analyses, despite dealing specifically with the US case. The coordination between fiscal and monetary policy here becomes fundamental. For example, assuming an ascendant yield curve – that is, longer maturity of the titles and higher interest rates – the government financing strategy would initially be currency issuance or short-term bonds issuance. However, both options involve inflationary risk due to direct monetisation of the deficit or the pressure of a debt concentrated on short-term bonds. The ideal mix needs constant intervention by the central bank in the market, targeting an adequate interest rate and a debt profile following investors' preferences regarding long and short-term bonds (Okun, 1967, pp. 8-9).

Gale (1989), for example, gives a specific role for government bonds when making a clear case that government bonds provide a low risk benchmark for financial markets and thus allow greater portfolio diversification. Calvo and Guidotti (1990), Giavazzi and Pagano (1990), and Guidotti and Kumer (1991) are also seminal works in the field of PDM that consider management of debt maturity and the role of expectations of future policy. Gokhale (2002) emphasises the fact that issuing bonds with different maturities facilitates monetary authorities' regulation of liquidity via OMOs. The author does not only stress that in most countries government bonds are the main assets used in these operations, but also that these bonds can improve the effectiveness of the transmission mechanism of monetary policy (pp. 720-21).

The PDM approach is behind the recurrent recommendations by international organisations such as the World Bank and IMF[53] that countries, especially developing countries, need to develop their bond market, and the government bond market is the cornerstone for this (Eichengreen, 2008b, p. 1). The argument is then enhanced and

[53] See IMF and World Bank (2001a, 2001b, 2014, 2014) and the World Bank (2007b, 2007a).

complemented by the assumption of a positive relationship between the ability to minimise cost and risk and the development of an efficient government bond market, as i) government bonds have lower credit risks than other participants in the markets, hence their yields serve as a benchmark in pricing other financial assets,[54] which then serves "as a catalyst for the development of deep and liquid money and bond markets generally"; ii) the development of deep and liquid markets for government bonds "can achieve lower debt service costs over the medium to long term as liquidity premia embedded in the yields on government debt wane"; and iii) a developed bond market has the capability "to buffer the effects of domestic and international shocks on the economy by providing borrowers with readily accessible domestic financing, and it is especially valuable in times of global financial instability, when lower quality credits may find it particularly difficult to obtain foreign funding" (IMF & World Bank, 2001b, pp. 32–33). In this light, government financing via government bonds, and therefore fiscal deficits, means greater liquidity, and a decline in government financing may lead to governments issuing debt "*not to finance expenditures* but to support the development and liquidity of a domestic fixed-income market" (IMF & World Bank, 2014, p. 37, emphasis added).[55]

A similar argument is made by the World Bank Group's Government Bond Market Development Program (GBMDP)[56] and the OECD (1982, 1993, 2000, 2002), which complement the above emphasising the relevance of government bonds as instruments for the development of financial markets and for the conduct of monetary policy. In the first case, the government bond market contributes to economic growth, helping to allocate resources and buttress financial and macroeconomic stability. In the second case, a developed and liquid government bond market enhances the conduct of monetary policy as "bill and bond yields provide a more efficient alternative for regulating domestic money and credit conditions than changing bank liquidity and reserve requirements (which is a relatively blunt instrument) or issuing directives regarding lending practice to the banks" (Eichengreen, 2008b, pp. 1-3).[57]

[54] The lower credit risks are generally associated with the power of the state to tax or print money. From Modigliani and Ando (1976), for example, "government bonds typically are backed by the "faith and credit" of the government, not by physical or financial assets" (pp. 3-4). This perspective will be further explored in the next chapter.

[55] For an overview on how this literature generally understands market liquidity see Committee on the Global Financial System (1999, 2007).

[56] See Eichengreen (2008b, 2008a), Raghavan and Silva (2015), World Bank (2009) and Wheeler, (2004).

[57] Eichengreen (2008a) adds that the role of government bonds in creating a reliable infrastructure to enhance investor confidence also involves developing "an efficient primary market by holding regular auctions, disseminating information on the outcome, and widely distributing new bond issues through a

The GBMDP also produces a series of notes[58] aiming at supporting the development of liquid local currency bond markets. They advise which tools should be used and developed for such an end. The majority of these tools has government bonds at their core and show that the functionality of these bonds does not necessarily pass through government financing needs. Amongst the advice, there is, for example, encouragement of government bond buybacks and exchange use, which are considered to be necessary in the government bond market to enhance market liquidity/manage refinancing and mitigate refinancing risks. There is also the development of securities lending facilities (SLF),[59] which is the provision by the government of bonds to the government's primary dealers (PDs) in order to, for instance, avoid settlement failure in the clearing house by the PDs and lower the risks incurred by them (Raghavan, Richard, Akcadag, & Silva, 2015). Finally, an important example is the need to develop the repurchase market (repo market), as with repo operations the ability to mitigate counterparty risk exposure is made compatible with the ability to conduct unrestricted operations with the collateral received, i.e. the collateral is further tradeable. For central banks, this market is crucial for the implementation of their monetary policies, as repos on government debt are a tool to accommodate temporary adjustments to base money (Martinez-Resano, 2015).

From the perspective of the PDM literature, the debt profile chosen – that is, bond maturities, interest payment schedules, indexation and denomination in foreign or local currency – becomes primarily a question of government debt management. Overall, the PDM approach leads to three main consequences. First, it gives government bonds a different status from the traditional one linked to bond-deficit expenditure. Second, it gives investors an important place in the public debt debate, as it states that the government must adopt a strategy of issuance that clearly allows the investor to anticipate a reliable supply of fixed-income securities and the government must consider investor preferences (Eichengreen, 2008a; Raghavan & Silva, 2015). Finally, and linked to the previous consequence, it elevates monetary policy to a higher level, stating that a government's annual borrowing plan must include an issuance plan for government bonds that accounts not only for the government's objectives for financing,

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primary dealer or comparable system," and cultivating "an efficient secondary market on which price information is continuously available, transactions costs are low, and effective custodial and safekeeping services are available" (p. 2).

[58] See IMF (2001).

[59] The financial instruments used to lend securities are: a straight loan, a repo and reverse repo. "Repo is a sale of securities coupled with an agreement to repurchase the securities at a specified price on a later date" (Martinez-Resano, 2010, p. 5).

but also managing risk and developing the financial domestic market (Silva & Raghavan, 2015, p.1).

Although the monetary policy's elevated position is not directly discussed, the PDM approach acknowledges that its goals are different from fiscal policy. The latter focuses on effects of government spending and taxation on macroeconomic variables, and microeconomic impacts of individual tax and spending policies on resource allocation, welfare, and economic growth. Debt management, on the other hand, focuses on ensuring that the expected cost and risk of the debt portfolio remains within tolerances acceptable to government, and developing and maintaining an efficient market for government securities (Wheeler, 2004, pp. 4-5). According to the IMF and World Bank's (2014) *Revised Guidelines for Public Debt Management* (hereafter the *Guidelines*), the coordination between debt management and fiscal policy goes through the assurance that the level and rate of growth of public debt are sustainable. The PDM literature considers that debt sustainability – understood as public sector debt service ratio and ratios of public debt to GDP, exports and tax revenue – is a fiscal authority matter. Thus, the debt management offices' (DMOs) role is to make clear to these fiscal authorities the impact of government's financing requirements and debt levels on borrowing costs (p. 5).[60]

Regarding monetary policy, it seems there are more connections than conflictual goal between it and debt management. The connections are found in "how to finance budget deficits and manage the daily liquidity flows between the government and the banking system that arise from the government's financial transactions" (Wheeler, 2004, p. 5).[61] For the *Guidelines,* in countries with more developed and efficient financial markets, debt management and monetary policy are clearly separated, which reduces possible conflicts. In their approach, when countries lack a developed bond market and an independent central bank, greater challenges arise because of the difficulty in separating instruments for monetary policies from those for debt policies (pp. 14-15).[62]

[60] The DMOs should monitor emerging debt sustainability problems based on portfolio risk analyses and market reactions observed when conducting debt management operations (IMF & World Bank, 2014, p. 7).

[61] See also IMF and World Bank (2014), p.13.

[62] Brazil, from the beginning of the 2000s, began to explicitly include in the development of its government bond market the goals of achieving good PDM. Following the IMF and World Bank's *Guidelines*, Brazil implemented a series of changes and reforms, including the Fiscal Responsibility Law (LRF) in 2000, which, among other things, stopped the Central Bank from issuing its own bonds (see Chapter 6), and the Annual Borrowing Plan (ABP) implemented in 2001, which is based on PDM goals. These include greater transparency and predictability, as well as minimising long-term borrowing costs,

The PDM literature at the policy level represents a clear development and enhancement of the relationship between public finance and financial markets, with a great emphasis on formally submitting the former to the imperatives of the latter. This also contributed to a change in the issue of debt sustainability, which started being discussed through the lens of PDM based on sovereign debt portfolio management.[63] This take move the focus to more specific questions regarding choosing the allocation of debt instruments.[64] Together with this change has come an enhancement of the numerical (computational) approach, which is strongly influenced by applied mathematics and common investment methods (such as Value at Risk), to determine benchmarks for optimal public debt portfolio allocations (Melecky, 2012; Melecky, 2007). For Melecky (2012), the analytical approach to evaluating government debt positions and debt profile choices does not provide the exact necessary policy instructions. A numerical approach is preferable because "from a policy perspective, the analytical approaches are likely more useful for forming strategic guidelines for debt management rather than for determining strategic benchmarks for optimal debt portfolio allocation" (p. 139).

Despite acknowledging the vast literature discussing public debt within academia, policy makers state that little has been written about how to actually manage and allocate the government's debt. Chan-Lau and Santos (2010), for example, argue that it is only since the 1990s this question has received more attention due to the collaborative work between practitioners in national debt offices and international institutions; this resulted in well-established research and guidelines for sovereign debt portfolio managements. Debt management offices in ministries of finance and central banks around the developing world have worked together with the World Bank Group's *GBMDP* and followed the IMF and World Bank's (2014) *Guidelines* to implement this quantitative approach to debt sustainability,[65] which is at the core of the actual practice of DMOs. Needless to say, such numerical approaches contributed to increase the

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with maintenance of prudent risk levels, and, at the same time, contributing to the smooth operation of the government bond market. For more examples, see Silva et al., (2010), pp. 117-118.

[63] Although not so popular due to difficulties in compiling data and estimations of the value of public assets and liabilities, works on the field of debt sustainability and PDM also involve the sovereign balance sheet discussion, named Sovereign Asset and Liability Management (SALM). See Das, Lu, Papaioannou and Petrova (2012) and Folkerts-Landau and Cassard (2000).

[64] See Missale and Blanchard (1994) and Missale (2012). For an overview on the literature discussion on this topic see Missale (1997).

[65] For example, Brazil, Chile, China, Costa Rica, Egypt, India, Indonesia, Kenya, Malaysia, Mexico, Morocco, Nigeria, Peru, Poland, Russia, South Africa, Sri Lanka, Turkey and Uruguay. The adoption of numerical strategic benchmarks for the debt portfolio in Brazil can be seen in Silva, Carvalho and Medeiros (2010). The World Bank Medium Debt Management Strategies (MTDS) computational toolkit to support debt management in developing countries follows this numerical approach.

distance, and probably generated more likely conflicts, between the PDM and fiscal and monetary policy goals.

Although the link between public finance and financial markets can be traced back in history, the increasing number of financial innovations and the volume and trade of financial assets, including the trade in foreign exchange markets, since the 1970s has given a different perspective to it. This is especially so, considering that the central issue is no longer the financing of the state deficit, but to guarantee a stable and liquid financial market for private investors while managing the trade-off between risk and cost for government bonds. In this sense, while it is not explicitly acknowledged, there is a structural change in the commonly used wisdom that public debt results from public deficit, which is found in several traditional textbooks on public finance.[66]

Further, again, although not openly acknowledged, this somewhat new link between public finance and financial markets brought about by the public debt management literature implied the use of state and government bonds to cushion the impacts of financial crises in a different fashion than bailing out banks. The debate over PDM among the International Financial Institutions (IFIs) and several national governments along the lines discussed above initiated the World Bank and IMF's (2001b) *Guidelines for Public Debt Management*.[67] Intriguingly, it was only after the crises in financial markets in the late 1990s that efforts to introduce modern risk management practices into the formal debt management objectives were prioritised for PDM (see Silva et al., 2009, p. 151). Then, after the financial turmoil that hit the global economy in 2007-8, the IMF and World Bank's (2014) *Revised Guidelines for Public Debt Management* was designed to strength the capability of public debt management to reduce countries' vulnerability to domestic and external shocks, whether due to financial or other reasons (pp. 29-30).[68]

In sum, this literature moves away from the bond-financed expenditure issue when it claims that the existence of public debt is related to the dynamics of the financial markets. It differs from the traditional literature in that it clearly assumes

[66] See, for example, Musgrave and Musgrave (1989), Stiglitz (2000b), Rosen and Gayer (2007), Gruber (2010), Fisher (2009) and Hyman (2013). This selection is based on the syllabi for public finance courses of the top graduate programmes in economics in the US according to the 2009 US News & World Report ranking.

[67] See also IMF and World Bank (2001a, 2014) and World Bank (2007a, 2007b).

[68] The argument pro development of bond markets underpinned by the government bond market is once again reinforced in the 2014 *Revised Guidelines*. However, the IMF and World Bank (2014) acknowledge that vulnerability is no longer a problem only for smaller and emerging market countries with less diversified economies, a smaller base of domestic financial savings and less developed financial systems, which in turn make them more susceptible to financial contagion through capital flows; it is also a threat to larger and developed economies (p. 4).

government may issue debt, not to finance expenditures but to support the development and liquidity of a domestic bond market. Additionally, the primacy of monetary policy over fiscal policy is reinforced and it directly acknowledges that there is a possible conflict between the PDM and the fiscal objectives.

However, the PDM literature fails on two main accounts. Firstly, there is a lack of detailed discussion of the financial costs to the public sector of monetary policy managing the financial market. Secondly, the literature fails to discuss and integrate in its policy recommendations the constraints imposed on the monetary policies by severe tension and imbalances in the financial markets, as well as the central banks' numerous difficulties in performing monetary management in a world of free capital mobility floating exchange rates, as documented by a vast literature (Belluzzo, 1997; Calvo & Reinhart, 2000; Calvo & Mishkin, 2003; Dymski, 1999; Epstein, 2005; Gabor & Ban, 2016; Helleiner, 1994, 1994; Helleiner, Pagliari & Zimmermann, 2010; Krugman, 1998; Panitch & Konings, 2009; Strange, 1997).[69] The solutions for financial market uncertainty, referred to by government debt managers as "Knightian uncertainty" (Taleb, 2005), have been restricted to strengthening the numerical computational quantitative approach.

It also follows that the IMF/World Bank PDM literature considers the role of private investors uncritically. Nevertheless, studies show that the liberalisation of capital accounts in developing economies, followed by the deregulation of financial markets, have facilitated and contributed to foreign investors' entry to and exit from the domestic financial markets, which has essentially been driven by financial and speculative gains. In several cases, this has restricted the borrowing capacities of governments (Hardie, 2011, 2012) and enhanced exchange rate volatility in developing countries (Kaltenbrunner, 2010, 2015; Kaltenbrunner & Painceira, 2014).[70]

2.5. Conclusion

This chapter offered an overview of how the Keynesian influence on economic literature on public debt, including the neoclassical school, led to a tradition in which the issuance of bonds is associated mainly with fiscal policy and examined through the lens of its effects on the real variables of the economy and outputs. More precisely, this literature directly and indirectly discusses public debt and economic growth, and the circumstances under which government deficits are justified to finance fixed capital

[69] This literature will be explored in the next chapters.
[70] This literature will also be explored in the next chapters.

formation and/or to manage unfavourable macroeconomic conditions.

Even when the effects are denied, i.e., the crowding out effect and the RE, the key issue is the effectiveness or not of the fiscal policy in regulating the economy and generating growth. It is rare to find in this debate a direct discussion of whether government bonds assume an even broader role for achieving a sound economy in the sense that they are an instrument for devising monetary policy and consolidating the financial system. The shift from an emphasis on fiscal to monetary policy – which started with the Lucas and Monetarist critiques, gained strength with the emergence of the New Keynesian school and was consolidated with the NCM – did not result in exposing more clearly the functionality of government bonds via monetary policy in the capital markets. It could not have done so, as this shift came together with an emphasis on balanced budgets, which in turn confirms how intrinsic the association of issuance of government bonds with mainly fiscal policy is to this debate.

With the NCM and the primacy of monetary policy, the tradition discussed in the first section is seen in terms of a dichotomy: on one side, the ability of monetary policy to control inflation and influence real economic activity in the usual ways versus fiscal policy alchemy; and, on the other side, the inability of monetary policy to influence real economic activity in the usual ways versus fiscal policy's stronger effectiveness in influencing real economic activity. This dichotomy essentially summarises the endless debate around the dispute between fiscal and monetary policies and their respective multipliers' calculation in both orthodox and heterodox literature, which then confirm what O'Connor (1973) defines as a "simplistic" approach to public finance.

In terms of devising monetary policy, the works of Blinder and Solow (1976), Godley and Cripps (1983) and Okun (1967), for example, present a more direct discussion of the issue. However, the discussion is still very much attached to the accommodating role of monetary policy given a previous issuance of bonds or the existence of a budget surplus. That is, the monetary policy device is a consequence of a particular situation while a more general role of this device in terms of managing, improving and regulating the financial market is not there, directly or indirectly. In other words, although the literature acknowledges the understanding of government bonds as a relevant instrument for the conduct of monetary policy several times, this understanding is not contextualised from the perspective of the broader and *independent* role that these bonds play in consolidating the financial system. Further, a more explicit

account of the financial costs of monetary policy is frequently overlooked, as there is a tradition of focusing on fiscal policy as the one generating the burden to the public sector, most often through bond-financed deficit expenditure.

However, this is not to say that the discussion on government bonds and expansionary fiscal policy does not take into consideration what happens in capital markets when government bonds are issued. In fact, the perception (or otherwise) of these bonds as net wealth followed by changes in savings and investments is at the core of most of the analysis in the field of bond-finance expenditure; and these changes occur in the capital market due to issuance of bonds. This thesis' critique is of the extent to which what happens in capital markets as a result of government bonds issuance is fairly ignored or taken for granted due to the focus on bond-financed expenditure and its effects on AD and outputs. As a consequence, the functionality of these bonds in these markets is overlooked.

The PDM literature represents a shift in the treatment and understanding of government bonds. They are now understood as playing a more active role than just being a result of public deficit, which is a very important point for this thesis. The PDM literature also directly reveals that the issuance of government bonds and their profile is not necessarily related to budgetary needs or to government fiscal operation influences on the level of economic activity and employment, although the idea of development of the government bond market is linked to the assumption that financial deepening leads to economic growth. However, the public debt management literature fails on three main accounts: i) lack of detailed discussion of the financial costs to the public sector of monetary policy managing the financial market; ii) failure to discuss and integrate in their policy recommendations the constraints imposed on monetary policies by severe tension and imbalances in the financial markets; and iii) considering the role of private investors uncritically.

In sum, within these approaches, public debt is a reflection of fiscal policy and there is no direct, specific and analytical discussion of how government bonds, as a crucial tool in managing and controlling financial markets, assume an even broader role in achieving a sound economy and one which sees a more active role being played by these bonds than the passive one resulting only from fiscal deficits. In order to discuss this more active role played by government bonds, it is necessary to turn to a different framework, which is proposed in the next chapter.

Chapter 3 – Government bonds as titles of fictitious capital: the need for a critical framework

3.1. Introduction

This thesis aims to approach government bonds, and therefore public debt, from a different angle than that outlined in Chapter 2, one which is more appropriate considering the rise of the financialisation process[71] since the 1970s. In order to do so, this chapter offers a Marxist framework to analyse government bonds. This framework explains the functionality of public debt within the credit and financial system based on the understanding of government bonds as titles of fictitious capital. Fictitious capital is a paper claim on property or financial revenue and is the result of any stream of potential revenue being capitalised as an asset and then exchanged as interest-bearing capital (IBC). These titles of fictitious capital are crucial to the development and expansion of credit, the expansion and allocation of IBC, and the understanding of sources of instability and speculative booms in the economy. Further, the development of mechanisms for transactions with these paper claims can be understood as a precondition of financialisation and central to the contemporary credit system, as will be discussed in the next chapter.

As with any title of fictitious capital, government bonds draw upon surplus value that is produced in society as a whole and, in this particular case, this value is transferred to the bondholders via the tax system. In more general terms, the tax system, and the responsibility of the state to implement legal tender, allow for the wealth of the entire nation to back the credit of the state, which in turn makes these securities highly liquid and secure. From a social perspective, government bonds mean the creation of liabilities for the government and, at the same time, assets for the bondholders who bought these liabilities with, for example, currency. Thus the issuance of government bonds is a form of double-entry bookkeeping that connects the public and private spheres. The surplus value that is appropriated and the double-entry bookkeeping aspect guarantee future resources to finance the issue of national debt and provide a highly liquid security to support private financial markets.

Within this framework, government bonds are also one of the most important tools whereby the state can manage and intervene in financial markets. Essentially,

[71] Financialisation will be discussed in the Chapter 4.

these bonds become a means of intertemporal intermediation and ballast for the financial system as a whole, serving to provide liquidity for private markets and underwriting private credit to firms for the purposes of private profit. Through bonds, the government is able to intervene in the financial market and influence everything from liquidity and availability of capital to portfolio variation, returns on real and financial investment and price setting of real and fictitious assets, as well as contributing to speculation. From this perspective government bonds are the keystone of the financial markets, and a source for financial accumulation, rather than a fortuitous aspect of state finance.

Following this introduction, this chapter is structured in five sections. The first outlines the main categories necessary to understand Marx's credit system. Emphasis is given to the forms of capital that circulate in the exchange sphere and, therefore, the distinction between circulation of money as money and money as capital. There is a great focus on the relationship between IBC, credit system and interest rates in this section. This is necessary to make clear the integration between finance and production, and the particular take that Marx has on interest rates. Section two explains the emergence of fictitious capital. The section defines it as an IBC in an asset form and explains its formation based on the logic of capitalisation, which in turn makes the price of these titles inherently speculative. It is argued that these assets are claims on property or on financial revenue, but they are not capital in themselves and do not represent any capital. This is important to explain why formation of fictitious capital may lead to instability and speculative bubbles. Section three discusses the role of fictitious capital in the credit system. It argues that, although fictitious capital creates new contradictions and enhances instability and speculation, it is also functional for the credit system. In section four an account of government bonds is given, focusing on the support that bonds provide to private financial markets. The discussion of government bonds as titles of fictitious capital moves away from the more conventional debate focusing on bond-financed government spending. It examines the functions of government bonds in financial markets in terms of guaranteeing instability, liquidity and collateral for financial institutions. The section also points out that, in Marx, the tax capacity and creditworthiness of the state is the outcome of the social power of production of the nation; thus, the role of government bonds can be understood as a form of exploitation on a systemic level by means of the financial system. The last section concludes.

3.2. Capital and the credit system

3.2.1. Capital, money and forms of capital in exchange

Under the capitalist mode of production a relation of exploitation takes place in which capitalists compel "the working class to produce more than it consumes or controls" (Saad-Filho, 2002, p. 4), therefore creating a surplus value that is appropriated by the former.[72] The difference between the value produced by the workers and the value capitalists appropriate is the measure of exploitation. And, in capitalism, this surplus value is the origin of all forms of profits; therefore, at this level of abstraction, "the total profits are qualitatively determined and quantitatively limited by the surplus value extracted" (Saad-Filho, 2002, p. 47).

Capital, the social relation between these two classes of capitalists and workers, is fundamentally based on the process of self-expanding value through surplus labour performed in production. Once this class relation of production is posited, capital exists in and through the means of production, commodities and money employed in the process of self-expansion of value, which Marx termed valorisation. In this light, capital can be, for instance, an axe, a draught animal, or even one billion dollars, but only as long as each is engaged in production aiming at the creation of surplus value through the employment of wage labour. "Otherwise, they are simply tools, traction animals, or banknotes" (Saad-Filho, 2002, p. 39).

The only process by which the self-expansion of value is possible is the production of commodities, which is theoretically captured by the general circuit of industrial capital. The circuit consists of the reproduction of value and the creation of new value within the sphere of production, and the realisation of surplus value within the sphere of exchange (circulation). Due to the specific functions performed by capital in these two spheres, industrial capital assumes different forms: money capital (the means of purchasing labour power), productive capital (the means of producing surplus value) and commodity capital (depository of surplus value to be realised as money on sale). At this level of abstraction, a general circuit of capital can be represented by M – C … P … C' – M' (M = money capital which buys commodities inputs; C which includes labour power and means of production; P = productive capital formed by C; C'= different commodity output with a higher value; M'= M + surplus value).

At the end of this process of circulation of industrial capital, the capitalist is in possession of a sum of money that is larger than his/her original advance, and the

[72] This is developed in Marx's labour theory of value (Marx, 1990). See also Rosdolsky (1992), Fine & Saad-Filho (2010) and Weeks (2010).

"reproduction of capital implies a definite amount of money not only at the beginning of the process but at its end, which is itself necessarily the beginning of a new process of circulation of capital" (Brunhoff, 1976, p. 52). M is capital in monetary form buying productive commodities for production and then reappearing at the end of the cycle in the monetary form M'. When money buys labour power, it acts as a means of exchange while the capitalist spends it as money capital. The relationship between capitalists (buyers) and wage-labourers (sellers) is one that contains the "transformation of a mere money-function into a capital-function" (Marx, 1990, p. 302). The money form that is used in this exchange is not important; it can be metal money, credit money, token money and so on. The only requirement is that this capital must be advanced in monetary form, i.e., money capital (Brunhoff, 1976, p. 54). The transformation of money into capital, therefore, should be looked at as a permanent movement of money. Money is transformed into commodity and later on it is transformed into money that signifies more than the first amount. This in turn means that capitalists need the production and exchange of commodities in order to accumulate (more) capital.

Thus, together with the circulation of commodities and money, money advanced into circulation by the producers of commodities returns to them due to the financing of production of capital. The process does not necessarily stop here. Part of the surplus value produced can be redirected into production in order to produce on a larger scale. In this case, capitalists save to invest and part of the surplus value is hoarded, not for capitalist consumption, but as a reserve fund related to the extension of the business. For Marx (1992), this reserve fund is a "latent money capital" that is part of an initial stage of accumulation and comes under the definition of hoarding, as there is a disruption of the process of exchange (p. 158). Hoarding, in this case, is part of the process of accumulation; however, it does not mean the reproduction of capital, as capital does not expand through the formation of latent capital. Hoarding still has its monetary aspect of regulating the process of circulation, but under capitalism this aspect is subsumed by the dynamics of the process of accumulation (see below).

In the sphere of exchange, in which the realisation of surplus value takes place, money can function as a means of commodity exchange. In this case, money is categorised as merchant's capital, and there is appropriation of surplus value only; that is, money acts as money and not money-capital. Despite not producing surplus value, merchant's capital appropriates surplus value by drawing upon profits and "indirectly increases the mass of surplus value produced by industrial capital". Overall, merchant's

capital "circulates and facilitates the transaction between the commodity and money forms of capital" in exchange. Merchant's capital can be divided between the forms of "commercial capital (buying and selling commodities)[73] and money dealing capital, MDC[74] (the handling of money)" (Fine and Saad-Filho, 2010, p. 117).

The different forms of capital are crucial when it comes to the issue of the production and distribution of surplus value.

3.2.2. The credit system and interest-bearing capital

IBC is the money that is employed, via credit relations, for the specific purpose of producing surplus value. It is a special type of commodity because it provides the use value of self-expansion for both lender and borrower simultaneously. The lender will appropriate interest, and the borrower will appropriate profit after the payment of interest has been deducted from the surplus value produced. Note that it is not the borrowing-lending relationship "or the payment of interest which characterises the IBC, but the use to which the loan is put", that is, the loan must be used to embark on a circuit of industrial capital (Fine and Saad-Filho, 2010, pp. 123-124). The advance of IBC occurs through the creation of contractual claims to property or revenue.

IBC is different from merchant's capital. The advance of money as money capital should not be confused with a situation of advance of credit in general, i.e., money as money. In the latter case, as previously discussed, we are dealing with MDC. When IBC comes into the analysis it can be argued that Marx divides the capital functioning within exchanges into merchant capital (commercial capital and MDC) and IBC. Commercial capital and MDC do not produce surplus value and these capitals are "subject to competitive entry and exit just like industrial capital. As a consequence, it is subject to tendency to equalised profitability". IBC involves the borrowing and lending of money-capital for the production of surplus value. It is a capital that "potentially earns interest … and 'profit of enterprise' that is distributed across capital subject to rate of profit equalisation" (Fine, 2009, p. 12). Neither the surplus value nor interest is predetermined. They are both variable, as is the division between profit and interest (Fine, 2009, p. 12).[75]

[73] See Marx (1991), p. 390.
[74] See Marx (1991), pp. 432-433.
[75] See Fine and Saad-Filho (2010), pp. 128-130 for details on how the division between "profit of enterprise" and interest is determined. See also Brunhoff (1976), pp. 88-89, and Brunhoff and Foley (2006), pp.197-198. According to Brunhoff (1976), in Marx "interest is not the price of capital. It does not express the intrinsic value of capital, for that depends on the value produced by the employment of the money-capital lent to the producers. Nor does it express the social scarcity, since it merely reflects the

IBC is also different from industrial capital. As mentioned above, the general circuit of industrial capital is represented by M – C – M'; however, the circuit of IBC is represented by M – M'. In the IBC circuit, "M' = M + dM, money that creates more money … The actually functioning capital, as we have seen, presents itself in such a way that it yields interest not as a functioning capital, but as capital in itself, as money-capital" (Marx, 1991, pp. 515–516). In this movement the process of exploitation of labour is obscured and money becomes a commodity that is defined within the *circulation* of capital as IBC (Marx, 1991, p. 460). The price of this unique commodity is the interest rate, which, as mentioned above, bears no relation to any underlying production conditions.

In the circuit of IBC, the division between lenders, identified for now as the bankers or money-dealers, and borrowers, whose money has to be "laid out on the purchase of means of production (in the case of industrial capital) or of commodity (in the case of commercial capital)" (Marx, 1991, p. 461), is clearly exposed. This means that the credit relations as IBC reflect, on one side, the money capitalists who control the supply of money to use as IBC, and, on the other side, the industrial capitalists who use the borrowed IBC in production (Fine and Saad-Filho, 2010, p. 124). In Marx, IBC holds the key to rapid accumulation. Its control by the credit system "regulates resource flows, determines the level and composition of investment, output, employment and trade, and it lifts the general rate of profit." The category of interest here clearly becomes part of the general costs of production, and the regulator of prices of production (Saad-Filho, 2015, p. 5).[76]

The capacity to appropriate surplus value as interest situates IBC differently in relation to industrial and merchant capital. As the profit that is distributed across competing industrial capitals and subject to profit equalisation exists only after the interest earned by the IBC is appropriated, the latter is the lever of competition in capital accumulation (Fine and Saad-Filho, 2010, p. 129). This leads to Marx having a theory of interest as opposed to profit, whose understanding is very much based on the forms of capital in exchange. This is not only a distinguished feature of his analysis, but is also crucial to understanding the changes in finance since the 1970s.

The existence of IBC draws on the same money accumulated through the sale of commodity capital as well as hoards of idle money from industrial and commercial

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inadequacy of the resources of the investors. It is then purely a form of division of the mass of the profit, such that its economic existence is shown only by its empirically determined rate" (pp. 89-90).

[76] See also Saad-Filho (2002), Chapter 8.

capitalists, workers, the state or anyone else (Ito & Lapavitsas, 1999, p. 61, pp. 67-68). The key issue is that this money, collected and centralised by the banking system and financial institutions in general, "as far as it appears on the market, is not represented by some individual capitalist, not the owner or another fraction of capital on the market, but assumes the nature of a concentrated, organized mass" (Marx, 1991, p. 386). Money capital in this market is, in fact, the total available loan capital in general, and money is the commodity that that lenders and borrowers face one another to buy (Marx, 1991, p. 368). It is by no means possible to actually identify the money employed, via credit relations, as money as capital, IBC, or as money as money, hence Marx's definition of the pool of money that is centralised in financial institutions as loanable money capital (LMC).[77]

For financial capitalists, who will demand a payment of surplus value proportional to the loan, it is irrelevant if the industrial capitalists manage to make a profit out of projects or not. Moreover, the competition for funds among capitalists leads to a standardisation of the loan contract. This form of loan contract also "obscures the source of interest as a part of surplus value, and makes it seem that interest is inherent to the money reserve itself" (Brunhoff and Foley, 2006, p. 197). Further, for the possessors of money-capital, "the origin of their incomes in the surplus value appropriated in capitalist production is obscured by the form these incomes take, which in this case appears to reflect specialized financial skills" (Brunhoff and Foley, 2006, p. 200). Thus, as capitalist production and credit systems develop, the idea of earning the current market interest rate (which will vary according to the riskiness and maturity of the loan) as inherent to money is reinforced (Brunhoff and Foley, 2006, p. 197).

In this light, with the development of the credit system, the mobilising of resources, the development of credit relations, the monetisation of debts and advances of money capital are not only activities performed by banks and financial institutions in general. They are also carrying on the money trade and having a LMC available for this purpose (Brunhoff, 1976, p. 85). This is, according to Marx, the other side of credit system (Marx, 1991, p. 405). It refers to both the circulation of debts and financial instruments in the system and the advance of IBC through the creation of contractual claims to property or revenue, which in turn gives rise to what Marx defines as capital markets, but today could be extended to what is broadly known as financial markets.

[77] The allocation of IBC is socially determined based on criteria such as profitability, risk, interest rates, and policy guidance. For more details see Saad-Filho (2015), p. 5.

It is in this scenario that the lending-borrowing relationships become investments in financial securities, such as bonds, shares or any kind of certificate that entitles the holder to a claim on property or revenue. For Marx, these titles and paper claims are defined as *fictitious capital*,[78] and this definition can be extended to the various new techniques of claiming wealth on future payment (see below).

3.3. Fictitious capital[79]

3.3.1. Fictitious capital and the logic of capitalisation

Fictitious capital comes under the umbrella of IBC (Fine, 2013a; Saad-Filho, 2015). The former in Marx is the independent circulation of IBC in paper form.[80] Based on the synthesis between Marx's theories of money and finance, Fine (2013b) argues that because money can be a store of value, and because the role of money goes beyond the sale of commodities, it can then be represented as an asset and – equally important – this asset can circulate independently of the value that it represents, as in the case of trade credit or IOUs (p. 10).[81] For these reasons, an obligation to repay containing interest and, in this sense, debts "can take on a market life of its own" (Fine, 2013a, p. 49).

> this paper claim on the value of the loan (and the interest payments due) can itself be bought and sold at a monetary value that *may or may not* correspond to the potential to realize that value in the application of the money advanced as capital by whoever took the loan. (Fine, 2013a, p. 50, emphasis added)

[78] Marx uses financial assets and financial securities interchangeably when referring to fictitious capital. However, this thesis uses only the term financial security. The reason for this is to make clear that Marx is considering one crucial aspect of these certificates, i.e., that they are tradable. Nowadays, as in Marx, financial assets are generally defined as certificate papers whose value is derived from a contractual claim, that is, titles of ownership rights to property and/or financial revenues. For instance, bank deposits, bonds and stocks. However, some of these financial assets are defined as a financial security, which essentially means that they are tradable, which is one important aspect that Marx highlights. For instance, funds in a bank account are financial assets, but they are not tradable – unless they are somehow transformed into a title of ownership such as a certificate of deposit (CD).

[79] The interpretation of fictitious capital within the Marxist literature is diverse and polemical due to the nature of Marx's own writings on the topic. The discussion generally occurs on two different fronts. First, in the context of theories of money, credit systems, finance and crisis as in Boger (1983), Brunhoff (1976, 2004), Brunhoff and Foley (2006), Carcanholo and Sabadini (2009), Fine and Saad-Filho (2010), Hilferding (2006), Meacci (1998), Mollo (2010), Paulani (2011, 2014), Perelman (1987), Rotta and Teixeira (2016), Saad-Filho (2015) and Trindade (2006, 2012), and second, within the debates on financialisation as in Brunhoff (2003), Chesnais (1998a, 1998b, 2001, 2005), Fine (2009, 2010, 2013a, 2013b) and Hudson (2010).

[80] Nowadays, these certificates are vastly represented by electronic forms.

[81] This is closely related to what Paulani (2011) understands as the autonomisation of the forms of capital in exchange. See also Paulani (2014) and Rotta and Teixeira (2016).

So, essentially, the payment of interest will depend to some degree on the successful expansion of production or profitable activity out of which the interest can be paid and, in this sense, the paper claim's payment commands "greater value depending on interest effectively charged". Thus, these assets are paper claims on expanded value. Further, their capital value[82] is distinct from "whatever value-generating process (or not) that is supposedly underpinning them" (Fine, 2013b, pp. 10-11). Finally, the asset may entitle a claim to property or financial revenue. However, the property "may or may not include productive capital that may or may not generate or appropriate surplus value that may or may not be realised" (Fine and Saad-Filho, 2010, p. 127).

It is this kind of security that Marx terms fictitious capital. Nowadays, given the new techniques of claiming wealth on future payment of the debtor and other financial innovations, operations with fictitious capital are part of the financial system and its varied financial markets. Still, a basic principle holds, i.e., the credit system mobilises resources, creates IBC in the form of securities and then supplies bundles of claims and cleverly designed financial contracts (such as derivatives)[83] for trading in the financial markets, which in turn ends up providing collateral for the financial institutions themselves (see below).[84]

The issue of why the securities may or may not generate or appropriate surplus value will be discussed in the next section. For now, the focus is on the value they represent. The distinction between the capital value of these securities and whatever value-generating process (or not) that supposedly underpinned them is possible because of the process of capitalisation. As explained above, the rate of interest, which is the price of this unique commodity called IBC, appears as an income inherent in money capital, as if it were productive of surplus value. Then, as the credit system develops, the widespread existence of IBC itself "makes any definite and regular monetary

[82] Capital value, market value, and asset price are used interchangeably in this chapter.
[83] Nowadays, the range of securities that come under the definition of what Marx termed as fictitious capital is vast. This chapter discusses only some of them. For a discussion, for example, of options and futures, see Parsons (1988). The case of derivatives is slightly different, as it demands a discussion of risk and risk management, which in turn assumes an unprecedented increase in the volume of financial securities traded. Financial risk management assumes the existence of uncertainty and ambiguity related to production and exchange, which in turn affect future income streams. It attempts to devise intertemporal links that can reduce uncertainty or make it known for the investors. Essentially, risk-based pricing models were devised to price financial derivatives and enable the transfer of various forms of risks. Risk and the conception of risk management have been increasingly fashionable within the field of finance and they are certainly the result of increasing trade with financial securities, discussed in the next chapter as the process of financialisation of the economy. On derivatives, see Bryan and Rafferty (2006, 2007), Guttmann (1989, 1994), Lee and LiPuma (2004), Lindo (2013), Norfield (2012a, 2013). See also O'Hara (2009) and Wigan (2010).
[84] See Saad-Filho (2015), p. 7.

revenue appear as the interest on a capital whether it actually derives from a capital or not" (Marx, 1991, p. 595). This in turn lays the foundation for any regular income to be "capitalized by reckoning it up, on the basis of the average rate of interest, as the sum that a capital lent out at this interest rate would yield". For example,

> if the annual income in question is £100 and the rate of interest is 5 per cent, then £100 is the annual interest paid on £2000, and this £2000 is then taken as the capital value of the legal ownership title to this annual £100. For the person who buys the ownership title, the £100 does actually represent the conversion of the capital he [or she] has invested into interest. (Marx, 1991, p. 597)

Interestingly, the existence of fictitious capital then means a backward calculation, i.e. from the money income we find the source that generates it, which is completely independent of the capital valorisation. In Marx's words, "the money income is first transformed into interest, and with the interest we then have the capital from which it derives" (1991, p. 595).[85] Ultimately, the calculation implies that "in this way, all connection with the actual process of capital's valorisation is lost, right down to the last trace, confirming the notion that capital is automatically valorised by its own powers" (Marx, 1991, p. 597).[86] As a result, the capitalisation process further weakens the link between the expansion of value within the production process and the calculation of the income as "the sum that a capital lent out at this [average] interest rate would yield" (Marx, 1991, p. 597). With the trade of these titles in the financial market, "finance seems to offer the possibility of automatic valorisation as if profit were an unmediated attribute of money, regardless of the mundane realities of lumpy technologies, uncertain changes in relative prices and the management of unruly workers" (Saad-Filho, 2015, p. 7).

Financial innovations such as collateralised debt obligations (CDOs), which are the claim of wealth on future payment of the debtor in the form of packaged pieces of debts sold in the financial market,[87] have similar features to titles of fictitious capital. CDOs are a promise of a future income that is exchanged in the financial sphere. Their nominal (or notional) value depends on the interest rate and the speculation on future income. For investors, all that matters and the object of their concern and evaluation is

[85] See Brunhoff and Foley (2006), pp. 200-201; Saad-Filho (2015), p. 6; Perelman (2008), pp. 19-12; and Paulani (2011).
[86] See Hilferding (2006), p. 149, for example.
[87] For example, debt of homeowners and various forms of debt instruments.

the yield these claims will produce. It can be an investment bank or a pension fund controlling huge cash reserves, and the promise form can be either debt payment or dividend; still the essence is the same, i.e., the capitalisation of future income implies the formation of a capital that does not exist in real terms but functions as if it does, and returns depending only on the transfer of (surplus) value.

The determination of the capital value by capitalisation implies that, since the future interest rates and returns on fictitious capital cannot be guaranteed *ex ante,* the capital value of these titles is intrinsically speculative (Marx, 1991, p. 598).[88] Factors interfering directly in their prices will, of course, vary according to the type of fictitious capital,[89] but their capital value is susceptible to fluctuation independently of any change in the value of the capital or claim to which they may have title. Thus the price of these securities may change due to exclusively market forces, i.e., interactions and beliefs among the traders,[90] and so the gains and losses due to market-value fluctuations become a gamble for the holders of these titles of ownership (Marx, 1991, p. 609). Speculation is therefore an intrinsic part of the definition of fictitious capital, and this feature may come in handy as the speculative operations, together with the trade of these claims, may also provide an opportunity for capital to temporarily defer any problems emanating from the sphere of production.[91]

Speculation brings a new set of complex mediations to the process of capitalisation and, therefore, the pricing of these titles. For instance, the definition of the price of these assets is based on capitalisation, but several elements have been added to this calculation in order to take into consideration not only the dynamics of capitalist accumulation, but also the fact that the future is uncertain and susceptible to speculation – for instance, risk premiums and differences between short-term and long-term interest

[88] See Perelman (2008), p. 12 and pp. 19-21 for more details on fictitious capital and speculation.
[89] For example, expected macroeconomic, sectorial and firm-specific variables and the business cycle in general.
[90] Marx (1991) argues, for example, that in times of pressure in the money market, the prices of securities change not only due to interest rate variation, but also because they are put up for sale in massive quantities to be converted into money (p. 598). Looking at the financial markets as a whole, Toporowski (2000) states that the interactions among traders are far from what is commonly called competitive pressures, as the latter are in fact pressures to emulate market leaders. Moreover, for him, "while this may speed the emergence of consensus … it may be as much through the exchange of disinformation and rumour as by the exchange of those prices and trading intentions that are the basis of neo-classical theories of financial markets … Because the business of financial firms is so dependent on reputation among other firms, pressures for conformity may serious inhibit competitive behavior of the kind envisage by neo-classical theorists" (p. 118). Either way, as Saad-Filho (2015) argues, these interactions and beliefs "cannot be 'correct' in any objective sense. They prevail only because the traders converge towards them" (p. 7).
[91] An argument along these lines is, for example, developed by Hilferding (2006) in the context of shares.

rates. This is particularly clear when it comes to risk management of government bonds, as discussed in the previous chapter.[92]

This is not to say that only titles to fictitious capital are prone to speculation. Overall, things with value can also be subject to speculation – tulips, houses, and so on. The issue with fictitious capital is specifically that its capital value does not represent any real capital, and it is always simply the capitalised yield. Therefore, the capital value of these papers is "wholly illusory" (Marx, 1991, p. 597). Speculation is then inserted into the pool of determinants that are related to uncertainties regarding, among other things, interest rates, changes in the quantity sold to be converted into money, and future production of surplus value.

3.3.2. Fictitious capital and the forms of capital in exchanges: the dominance of IBC

The capitalisation process explains the difference between the capital value of these assets and the capital that possibly underpins them. However, it must be made clear that the capital that possibly underpins them, or the value of the capital to which they may have title, should be treated with caution. It is crucial to understand that the difference is between the capital value, or the monetary value by which the titles are sold in the financial market, and the value that the advanced sum of money capital against the titles may or may not have realised as capital. This thesis' reading of Marx (1991) is not that these assets represent any real capital, or that the advanced sum given in exchange for the titles of fictitious capital is the capital generating surplus value from which their claims will draw.[93]

The reason why these titles do not represent any capital is because their capital value "is always simply the capitalized yield, i.e., the yield as reckoned on an *illusory capital* at the existing rate of interest". The devaluation of their capital value, for example, may occur due to interest rate rises, or due to the sale of large quantities to be converted into money (Marx, 1991, p. 598, emphasis added). Hence, the fall in price

[92] For more details about shares and bonds price determination see Itoh and Lapavitsas (1999), Chapter 5.
[93] This interpretation is contentious, as both Marx (1991) and the Marxist literature have passages that may lead to an opposite interpretation, i.e., fictitious capital does represent real capital and its claim replicates capital deployed elsewhere. See, for example, Brunhoff and Foley (2006), Carcanholo and Sabadini (2009), Fine (2009, 2013a, 2013b), Fine and Saad-Filho (2010), Perelman (1987) and Saad-Filho (2015). This opposite interpretation has generated significant discussion regarding the differences between IBC and fictitious capital, which in turn has had implications for the understanding of the sources of instability of the credit system and for the definition of financialisation – and even for the understanding of fictitious capital itself. Unfortunately, a detailed exposition of this discussion is beyond the scope of this thesis.

occurs irrespective of whether their yield is constant (as it may be in the case of government bonds) or whether their yield varies due to disturbances in the reproduction process, as in the case of shares. In short, titles of fictitious capital become "nominal representatives of non-existent capital" (Marx, 1991, p. 608), and Marx's empirical analysis of fictitious capital regarding shares and bonds should not change the essence of his argument: "all these securities actually represent *nothing but accumulated claims*, legal titles, to future production" (p. 599, emphasised added).[94] In this sense, note that the adjective *fictitious* is used not because the capital borrowed no longer exists[95] or the capital borrowed cannot exist twice,[96] but because the value of these titles of fictitious capital varies independently of any changes in the process of reproduction of capital in general. The process of capitalisation is the mechanism behind all this.

For Fine (2013a), there is, in fact, a logical controversy that emerges when Marx calls the independent circulation of IBC in paper form fictitious capital. When dealing with this controversy, it becomes clear that this issue is not only related to fictitious capital whether or not it represents any real capital, but additionally to the extent to which the formation of fictitious capital guarantees or represents the accumulation of real capital.

It follows that the development of two further logical points is necessary in this context. Firstly, while the definition of IBC is based on the use of loans as capital to make money, the expansion of wealth is to some degree independent of this intention as "positive outcomes in term of profitability depend upon how the economy as a whole, or at least other parts of it, are functioning" (Fine, 2013a, p. 50). For example, on the distinction between IBC and MDC on a more concrete level, Fine (2009) argues that the distinction between these two forms of capital is "not entirely the consequence of the intentions of those engaging in corresponding activities as outcomes are contingent upon the movement of capital as a whole". The division of labour certainly resulted in the historical emergence of financial institutions aiming at covering "the specialised functions associated with the separate categories of capital within exchange". However,

[94] See also Hilferding (2006), pp. 130-131, for the same conclusion. He uses government bonds as an example to make the case that titles of fictitious capital do not need to represent any existing capital: "If this deception is assisted in the case of industrial shares by the existence of genuinely functioning industrial capital, the fictitious and purely accounting nature of this paper capital becomes unmistakable in the case of other claims to revenue. State bonds need not in any way represent existing capital" (Hilferding, 2006, p. 110-111).
[95] Marx, (1991), p. 595.
[96] See Marx, (1991), p. 597

"concrete outcomes do not correspond to their distinct spheres of operation either individually or in toto" (p. 13). In short,

> [a]n advance of IBC that fails will, nonetheless, expand commercial credit and realise surplus value for others out of the expenditure of the constant and variable capital advanced. On the other hand, state expenditure, on pensions for example, or credit extended for personal consumption will potentially realise surplus value in commodities purchased, *underpinning the capacity to sustain surplus value appropriated by corresponding IBC.* (Fine, 2009, p. 13, emphasis added)

Secondly, Fine (2013a) argues that Marx also conjectures "over when an accumulation of fictitious capital is a real accumulation of capital in the sense of corresponding to an increase in productive assets that are going to provide for the anticipated, even required, returns" (p. 50). This is an uncertainty in Marx. What can be argued is that even if the credit fails to generate real accumulation, the spending of the credit allows for some real accumulation in realising the circuit attached to IBC elsewhere in the economy.

> "In other words, the expansion of money as money may allow for the successful realization of fictitious capital as real accumulation and, vice versa, the expansion of fictitious capital may lead to no real accumulation at all but merely the expansion of credit" (Fine, 2013a, p. 50).

Either way, whatever the form and conditions taken by the transactions with fictitious capital, "IBC attaches itself through them to the reproduction of capital as a whole, representing a claim on surplus value that has yet to be produced". These credit transactions may range from simple credit extended merely for the purpose of making purchases to bully-boy debt collection, government bonds, futures contracts for commodities, collateralised debt obligations, etc. (Fine and Saad-Filho, 2010, pp. 126-127).

A direct consequence of these two logical points is that while credit systems extend the limits of the reproduction process and accelerate the development of productive forces and the world market, "IBC can be party to various operations

targeted at producing or appropriating surplus value, either *independently* or in association with industrial capital" (Fine and Saad-Filho, 2010, p.126, emphasis added). This in turn makes the relationship between industrial capital and IBC reliant on "an intermingling of circuits of capital without predetermined outcomes in terms of real accumulation" (Fine and Saad-Filho, 2010, p. 128).

For this reason, the outcome of specialised financial skills and the innovations in terms of financial vehicles in the modern credit system necessarily include the possibility that money capital does not directly set in motion a productive process from which capitalist profit arises. Yet, even if there is a "collective illusion about the source of financial revenues", a continuing stream of income will be taken from a surplus value produced in different sectors of society when any kind of productive investment has resulted from the money raised from these financial assets (Brunhoff and Foley, 2006, p. 200).

It follows, then, that the dynamics of the accumulation of fictitious capital and real capital[97] may potentially diverge from each other. Further, although the stream of income offered by titles to fictitious capital draws upon a real source of value from intermingled circuits of capital existent in the entire society, the sum of money capital advanced against these titles does not necessarily guarantee the expansion of value that occurs in the productive sphere, let alone represent or replicate any real capital. That is why at a more concrete level,

> the prodigious expansion and proliferation of financial markets over the past three decades is indicative of a secular, if irregular, trend of expansion of fictitious capital at the net expense of the real economy. (Fine, 2013b, pp. 11-12)

Accumulation of fictitious capital cannot therefore be fully aligned with real accumulation. Scholars studying finance seek this alignment when encouraging private and public regulation of the financial system, but this regulation will always face limits. Fictitious capital necessarily leads to a financial sector that is capable of financing overproduction while generating instability and speculative bubbles. Although one could argue that once the separation between IBC and fictitious capital is clear, speculative bubbles and credit crashes may be avoided, this thesis holds that the issue is not the difference between these two capitals, but the dominance of IBC over other

[97] Real capital is assumed here as the capital invested and functioning in capitalist enterprises (Marx, 1991, p. 597).

capitals. Moreover, remarkably, the key point is that this dominance occurs through fictitious capital.

As discussed in the previous section, in money markets the sources and application of the money lent and borrowed are irrelevant, as the attention is on the guarantee of repayment. However, a pre-condition for accumulation of capital is that IBC must "appropriate surplus at the expense of other capitals" (Fine, 2013a, pp. 53), and it does this by taking its "share of surplus produced in the form of interest … before the remaining surplus is distributed to other capitals as profit". In the financial market, this happens not only through the lending and borrowing of IBC directly, but also through the "lending and borrowing of IBC in the form of loanable money capital for purely credit purposes". Put simply, a credit transaction such as a mortgage, for example, does not generate surplus value, so it is not part of IBC. However, it does become IBC

> once a portfolio of mortgages are bundled up into an asset and sold, possibly combined with other sets of assets, and sold again, and so on. In this case, those buying the fictitious capital are advancing money capital in the expectation of a surplus even though the origins of this surplus do not lie in such an exchange (Fine, 2013a, pp. 53, 55)

This expert further clarifies the non-existence of a link between fictitious capital and a specific value-generating process or any real capital that these titles might represent. That is, as said above, the key issue is not the difference between IBC and fictitious capital, but the extent to which formation of fictitious capital guarantees or represents accumulation of real capital, which in turn leads to the fact that "any stream of potential revenue is not only open to being (fictitiously) capitalized as an asset but can then serve as the basis for further exchange as IBC". This process, i.e., the capitalisation of a stream of revenues as an asset followed by a further exchange as IBC, is the foundation of the "reign of IBC" (Fine, 2013a, p. 55). Therefore, fictitious capital actually becomes the instrument through which IBC monopolises the financial system.[98]

The capitalisation of revenue and its trade represent not only the incorporation of "a variety of credit relations into the orbit of fictitious capital" (Fine, 2013a, p. 56), but also the dominance of IBC over other capitals even when the creation of surplus

[98] This will be particularly important for the definition of financialisation.

value does not lie in the exchange of some of these assets. This last point further clarifies why accumulation of fictitious capital can result in malaise of production of surplus values. Unlike IBC, the use to which money raised by fictitious capital is put is not important. It can be used to buy shares, bonds or any type of securities; the common feature is that these securities will represent a return of surplus value even if their connection with the underlying production is lost. This is because these titles, having the capital raised by them being consumed as revenue or consumed as capital, are the result of the capitalisation of a stream of revenues as an asset, followed by a further exchange as IBC. Thus, although fictitious capital guarantees a claim upon value that is produced or realised in society, it cannot be defined by the use to which the sum advanced against it is put, or by the fact that its capital value is different from the value advanced against it.

When any sum advanced against a paper form is capitalised as an asset and placed within the financial system as the basis for trade, the reign of IBC expands intensively through rises in asset prices and potentially speculative booms, and extensively when "attaching itself to new activities from which it was previously absent or even absented by virtue of regulation or a form of provision (e.g., where income streams are not generated, as in social housing as opposed to mortgaged owner occupation)" (Fine, 2013a, p. 55).

In sum, when distinguishing the specific function of each of the forms of capital from its general function as capital, fictitious capital is placed on the side of credit money as capital, and therefore its claim is deduced from surplus value before the distribution of the latter among other capital. As a consequence, the payment of interest on these titles flows out of the surplus value produced in the society, and the increase in this flow of interest results in a decrease of the profit acquired by industrial capitalists as well as a transfer of part of the surplus value to the rentist sectors of the society. Fictitious capital as an asset, such as an IOU, symbolically represents money as a store of value. These assets circulate independently of any purchase provided by commodities. The formation of fictitious capital exists because in capitalist societies any stream of income can be capitalised. These titles are termed capital because they guarantee a claim upon value that is produced or realised in society. They are a paper claim on expanded value. They are also termed fictitious because their capital value can be different from whatever value-generating processes in society, which in turn gives rise to and supports speculation. Although these titles extend the limits of the credit

system, they do not necessarily guarantee a future production of surplus value, which, together with speculation, makes the credit system prone to speculative booms and instability.

3.4. The role of fictitious capital in the credit system

Although fictitious capital creates new contradictions and enhances instability and speculation, it is functional for the credit system. The credit system is constructed as a set of specifically capitalist social mechanisms that utilise stagnant money and promote the further generation of surplus value. These mechanisms evolved through the development of commercial credit, the emergence of banking credit and the development of finance in general. Fictitious capital is at the centre of this process, and its formation is not just a gambling game played by private moneylenders, but crucial to the development of the credit system.[99] Fictitious capital mobilises capital, shifts resources across circulation of money as money and money as capital, facilitates new investment, finances production and consumption, raises profitability, and even dislocates the threat of crisis through debt-financed consumption or public sector spending (Fine, 2013a, pp. 51–51; Saad-Filho, 2015, pp. 12–13). It does this while extracting part of the surplus value produced by the working class through the use of fancy, innovative financial mechanisms.

The mobilisation of LMC through the formation of fictitious capital is not only about the capitalisation of certain flows of incomes. There is also the constant transformation of fictitious capital into LMC and vice versa.[100] For example, although an investor may buy shares and receive dividends instead of lending money against interest income (Foley, 1991, p. 116), he/she may invest productively in another branch or sector using the money received by selling the shares (Hilferding, 2006, p. 140). This transformation is further helped by the process of speculation, which confirms the extent to which speculation is a constitutive part of the credit system. According to Hilferding (2006):

> speculation creates an ever ready market for the securities which it controls itself, and thus gives other capitalist groups the opportunity to convert their

[99] See, for example, Hilferding (2006) and Lapavitsas and Mavroudeas (1999).
[100] In a more general way, Trindade (2006) argues that the titles of fictitious capital function by absorbing LMC either in the stock market or in the public bonds market, and this function is a crucial factor for capital mobility, which has different patterns depending on the economic state at that time. For instance, in moments of overproduction crisis, fictitious capital may act as a "countercyclical brake" (p.118).

> fictitious capital into real capital, to change from one investment in fictitious capital to another, and to convert fictitious capital back into money capital at any time ... the fact that speculation is unproductive, that it is a form of gambling and betting (and is rightly regarded as such by public opinion) does not run counter to its necessity in a capitalist society, at least during a certain period of capitalist development. (Hilferding, 2006, pp. 137-138)

As argued by de Brunhoff (1976), the centralisation of monetary funds is therefore augmented by financiers and stockjobbers who also manage liquidity. This is valid including from shares to the new forms of fictitious capital, and government bonds should not be seen as an exception (Guttmann, 2008), as long as these titles represent revenue streams that have been (fictitiously) capitalised as assets that are then tradable.

The tradeable feature gives to government bonds, treasury notes and all kind of stocks the ability to have mobility enough to evade the conditions of the circulation of capital while mobilising LMC. For example, in the case of government bonds, they can circulate in their own way by being sold to other individuals. That is,

> they are not subject to either the movement of the circulation of capital, or the circular movement of the credit financing of productive activities. This kind of asset, animated by 'its own laws of motion', can circulate indefinitely despite its 'fictitious character', or rather thanks to that character which preserves the public debt as such. (Brunhoff, 1976, p. 95)

In the case of stocks, again, these titles of ownership circulate in the stock market as commodities and their price depends on their capitalisation and is "part speculative since it is determined not only by the actual income, but also by the anticipated income" (Marx, 1991, p. 467). For both bonds and shares, the securities are not subject to either the movement of the circulation of capital, or the circular movement of the credit financing of productive activities. Under the specific conditions of the financial market where these titles are traded, their circulation represents the past and the future, but never the present of productive capital.

In addition to mobilising capital and managing LMC, and therefore liquidity, titles to fictitious capital also become part of the banks' own capital. As mentioned above, money as a means of hoarding can be understood as money abandoning the

circuit of capital. The reasons behind hoarding are responsible for the regular creation of stagnant money, which provides an objective basis for both commercial and banking credit, and, therefore serves as the foundation for the credit system. However, this is only part of the story. According to Itoh and Lapavitsas (1999), "with the development of capitalism and the emergence of an advanced credit system, money hoards are socialized and their form changes" (p. 47). This means that the hoarding of money as a durable accumulation of value and as money that could become capital takes the form of bank deposits, company certificates of indebtedness, state bonds and other financial instruments. That is, hoarding as an accumulation of value,

> becomes claims on future outputs and value, and they are held against credit institutions in the first instance. At the same time, however, capitalist institutions themselves begin to undertake some of the social hoarding function: the reserves of banks are a vitally important form of purely capitalist hoards. The money hoard of banks, however, also tends to lose their metallic substance in the course of development of the credit system, and become a graduated structure of claims on others. (Itoh & Lapavitsas, 1999, p. 47)

In other words, hoards take the form of fictitious capital. The hoarding function based on titles of fictitious capital complements, and is intrinsically connected with, the banks' credit practice – to the extent that banking capital then consists of:

> 1) cash, in form of gold or notes; 2) securities. These latter may again be divided into two parts: commercial papers, current bills of exchange that fall due on specific dates, their discounting being the specific business of the banker; and public securities, such as government bonds, treasury bills, stocks of all kinds, in short, interest-bearing paper which is essentially different from bills of exchange. Mortgages, too, can be included in this category. (Marx, 1991, p. 594)

In countries with developed capitalist production, the banks' own capital represents an average amount of money existing as a hoard, and a large part of the hoard consists of mere papers that have no value of their own; these are purely fictitious and consist of claims on future revenue. Thus their value is determined differently from the value of the expansion of value in production, and "the claim to the same revenue is

expressed in a constantly changing fictitious money capital" (Marx, 1991, p. 600). Here, it is worth noting not only that elements termed by Marx as titles of fictitious capital play an important role as a form of hoarding, but also that the structure of the banking system is built upon these titles. The banks' reserves, a vitally important form of purely capitalist hoards, are also composed of titles to fictitious forms of value. In this context, hoarding acquires a financial aspect in which its forms are based on becoming claims on future outputs and value.

Saad-Filho (2015), for example, argues that "as the financial system expands, it tends to draw every idle morsel of money as money and money as capital into (possibly short-term) 'investment' in fictitious capital. In doing this, the financial system subsumes the hoarding function of money" (p.7). These titles and their hoarding and trade become an essential feature of the availability of LMC in the economy, which is essentially the credit liquidity in the system. Especially in the case of shares and government bonds, their emergence is due to the financing of the state and financing of production, but their place and function within the credit system is much wider than this. From this perspective, the titles of fictitious capital represented by government bonds are part of the modern credit system for a reason that goes beyond state financing. The demand for these bonds and the determinants of their movement are not only restricted to government expenditures; both are related to a set of mechanisms associated with the functioning of financial markets and market liquidity.

Creation of credit is also an aspect of the credit system understood from the perspective of fictitious capital.[101] Initially, credit money issued by the banks develops out of the general conditions of financing, with banks' action turning the expansion of credit into a multiplication of the means of payments (Brunhoff, 1976, pp. 93-94). However, in Marx, the banking system is not merely an intermediary between depositors and borrowers. That is, banks do not only play the role of financial intermediaries: as they develop, they also create deposits by the credit they extend (Marx, 1991). Brunhoff (1976) argues that sometimes banking relies on monetisation of debt and advances of money capital. But, sometimes, banking activity relies on creating deposits on the basis that the credit granted to borrowers represents a "purely banking supply of credit", which, in turn, "rests entirely on banking activity itself and does not correspond to any liquid saving". In this case, the bank credit for the borrower simultaneously reflects the bank's assets and liabilities, and the tangible basis for the

[101] For a Marxist analysis of credit and money creation, see Hall (1992) and Norfield (2013). See also Lapavitsas and Saad-Filho (2000).

latter disappears. Credit money here becomes a pure instrument of circulation; its circuit is no longer closed by any compensatory hoarding, but is the result of its circular form alone, which then makes this credit have a fictitious aspect (pp. 94-95).

According to Brunhoff (1973), all these roles that fictitious capital comes to play in the credit system make the unity of the latter present an altogether different aspect [102] in which almost all banking assets take on a fictitious character because their circulation "becomes independent of that of 'real capital' and even of the circular form which reflects, in terms of financing, the cycle of capital" (pp. 94-95). The fictitious aspect of the credit system largely rests on the form that the banks' capital assumes.[103]

In sum, on one hand, the form of credit circulating in a circuit implies its cancellation by repayment. On the other hand, the development of credit and credit instruments leads to the formation of titles of fictitious capital that break out of this particular form of circulation to the extent that they are themselves commodities negotiable in the financial market. This in turn gives great flexibility for the transformation of fictitious capital into LMC and vice versa. The titles' circulation continually forms new circuits which "become entangled by the sale and purchase of obligations which have become commodities, in such a way that the financial system tends to grow by feeding on its own substance" (Brunhoff, 1976, p. 91). Among the implications already discussed above, the credit system not only possesses significant power to stretch accumulation (financing the generation of additional value and surplus value), but also to create conditions for its own repayment.[104] In this sense, "credit is undoubtedly an aid for the accumulation of real capital, but in its own way" (Brunhoff, 1976, p. 97).

3.5. Government bonds

Government bonds, since the Keynesian Revolution, have long been an object of study when it comes to management of capitalist accumulation. However, an examination from the perspective of fictitious capital sheds light on how government bonds are intricate with functions regarding management, supporting and development of financial systems. For the reasons discussed above, for Marx, public credit, the issuing, selling, trading and holding of government bonds played a crucial role in

[102] This is what Brunhoff (1976) calls the third aspect of the credit system (p. 94).
[103] Brunhoff (1976) further argues that this leads to the accumulation of bank capital becoming "purely a problem of the redistribution of the income created by industrial capital" (p. 96).
[104] See also Lapavitsas and Itoh (1999), p. 49

financial markets and in the international monetary system in general (Krätke, 2005, p. 9).[105]

The issuance of government bonds means the advancing of IBC by buyers in exchange for fictitious capital. It represents transfer of income to the issuer and accumulation of funds in the hands of bondholders. In short, it is a way of mobilising capital. The use to which the advanced money capital is put is, as discussed before, irrelevant to its definition as fictitious capital. Whether it is used productively or not, the advanced sum will potentially realise surplus value in commodities purchased, underpinning the capacity to sustain surplus value appropriated by corresponding IBC, leaving aside monetary and fiscal policy purposes. More precisely, whatever the use of the money borrowed, the functioning of the state and its role will contribute to the expanded reproduction of capital. The bulk of government expenditure has an indirect effect on private economic activities (O'Connor, 1973).

Marx (1991) often assumes that the sums advanced by government bonds are spent unproductively. This assumption is wrong, especially when considering the discussion on developmentalist states in Latin America, for example. In examining public debt the Marxist tradition is strongly influenced by the idea of an unproductive state, no matter what the state does or how it pays for its activities.[106] In Mattick (1969),[107] for example, based on the idea that the modern public finance and taxation system provide the existence of the state in economic terms, the state is a burden, harming capital accumulation and constantly draining surplus value from society. This implicit notion of crowding out effect leads Mattick to criticise the Keynesian argument that deficit expenditure would restore levels of investment and employment. O'Connor's (1973) work is an exception within the Marxist tradition for moving away from this kind of approach; in that it offers a more detailed account of the type of state expenditures that lead to capital accumulation, differing from the majority of works within Keynesianism as well.

[105] Krätke (2005) is the English unpublished translation of the German published version, Krätke (2009).
[106] In the late 1960s and 1970s, Marxist scholars such as Baran and Sweezy (1966), Brunhoff (1978), Mattick (1969), O'Connor (1973), attempted to explain the growth of the state sector in most capitalist countries. The discussion involved policy choice, changes in the scale and organisation of capitalism, states policies regarding large and small capital, and links of the growth of the state to the growing gravity of capitalist crises, especially in advanced economies. A common and prominent topic across these analyses was the relationship between crisis and its effects on AD. In the specific case of the works of Baran and Sweezy (1966), Mattick (1969) and O'Connor (1973) there is also a discussion of the effects of government military spending to capitalist production and to the capitalist class.
[107] See also Foley (1978).

As with any title of fictitious capital, government bonds draw upon the surplus value that is produced by society as a whole and, in this particular case, this value is transferred to the bondholders via the tax system.[108] The tax system and the responsibility of the state over the legal tender (Krätke, 2005, p. 8),[109] which is related to the fact that "the symbolic role of money as representing social labor can be performed by paper currency as well, as long as it is issued by the State and having compulsory circulation" (Davis, 2012, pp. 47–48),[110] allows for the wealth of the entire nation to back the credit of the state,[111] which in turn make these government bonds highly liquid and secure.[112]

The substantial financial demands of states also give these bonds a particular status, leading to government bond markets that have a great ability to centralise, organise and control the volume of LMC to be converted into fictitious capital (and vice versa). This can be confirmed when examining the fact that since the 1970s the government bond market has improved specific functions (especially those related to control and regulation) of the model of mobilisation of IBC used by the stock exchanges (Trindade, 2012, p. 99).

From a social perspective, the formation of fictitious capital through government bonds means the creation of liabilities for governments and, at the same time, assets for bondholders. These bondholders range from banks, pension funds and firms to individual investors. In this light, the issuance of government bonds is a form of double-entry bookkeeping that connects the public and the private sphere (Krätke, 2005, pp. 5-6). Given their highly liquidity and security, government bonds are, in fact, "a means of

[108] The source of state revenue is taxes, which must come from surplus value. The reason for this goes back to the definition of the value of labour power. See Saad-Filho (2015), p. 11 and Fine, Lapavitsas and Saad-Filho (2004). For Krätke (2005), when Marx suggested that tax exploitation of the working class was a basic feature of the modern tax state, he had not clearly developed his analytical concept of exploitation and never really analysed or explained how it works (p. 5). O'Connor (1973) develops Marx's insights and argues that to guarantee the conditions for capital accumulation the cost of production should not only be socialised by the state, but shift away from capitalists to another class of taxpayers (pp. 210-211).

[109] In Marx, all forms of money in modern capitalism assume a public-private character as long as they are effectively defined and guaranteed by the state. That is, private money has to be promoted to legal tender (Krätke, 2005, p. 8).

[110] See also Krätke (2005), p. 7, and Davis (2010). In broader terms, Norfield (2012b) states that "the foundation of capitalist finances depend upon the state to establish the basis of the monetary system in which it operates – from laws relating to property rights and commercial dealings, to the legitimacy of the currency and the role of a central bank to provide institutional backup for the private banking system" (p. 3).

[111] "A sovereign state can assign a tax liability to the public, levied by constitutional processes. The value of this tax capacity is based on the total production of the national economy and its profitability, considered at present and projected into the future" (Davis, 2012, p. 48).

[112] Saad-Filho (2015) summarises these features of government bonds, stating that "there is generally no risk of default, since the Central Bank holds gold, foreign currency and other reserves, and the state can levy taxes and print domestic currency at will" (p. 11). See also Trindade (2012), p. 98.

intertemporal intermediation, and serve as the ballast for the financial system as a whole" (Davis, 2012, pp. 47-48).[113] This intermediation is crucial for government management of credit and for its ability to intervene in the country's macroeconomic stabilisation.

The ability of fictitious capital to appropriate surplus value produced by the economy as a whole and the double-entry bookkeeping together guarantee future resources to finance the issue of national debt, and provide a highly liquid security to support private financial markets. In Davis' (2012) words:

> [The] 'national wealth' serves to provide liquidity for private financial markets and to underwrite private credit to firms for the purposes of private profit. This is a form of exploitation of the public for private gain, on a systemic level, by means of the financial system. (p. 48)

Thus, it is possible to outline other important functions of government bonds which are not associated, as discussed in Chapter 2, with bond-financed deficit expenditure and the fiscal stimulus. Firstly, government bonds are considered top quality assets in banks' (or financial institutions in general) balance sheets. Thus, they are used as collateral to create new loans that may fund both real and financial investment, bringing additional income to these institutions. These institutions also gain through fees and interest charged during the process of purchasing and distributing government bonds. This top quality feature confirms an issue already discussed on the role that these titles of fictitious capital play in the credit system as a means of hoarding by banks and individuals. Secondly, financial institutions, firms and individual investors holding government bonds have an instrument that allows them to "regulate their reserves, park funds temporarily available, obtain liquidity at short notice and move seamlessly across different forms of fictitious capital" (Saad-Filho, 2015, p. 11). This confirms that government bonds are forms of absolving or returning LMC to the economy. Finally, the liquidity and safety of government bonds added to the large volume of issuance "turn the interest rates on these securities into the benchmark for

[113] See also Davis (2008).

yield curves and the precification of most types of fictitious capital" (Saad-Filho, 2015, p. 11).[114]

At a more general level, the trade in government bonds in the secondary market is often associated with these functions, which reveals a great deal of speculation with these bonds; this is especially so considering the different regulations and deregulations, and reveals states and their monetary policies to be intrinsically linked to the dynamics and development of financial markets. Government bonds are therefore a powerful tool through which a government is able to intervene in and influence financial markets, from liquidity and availability of LMC to portfolio variations, returns on real and financial investments, and price-setting of real and fictitious assets in general.

Although these functions look similar to the public debt management literature discussed in Chapter 2, one crucial detail makes the analysis fundamentally different. From the perspective of fictitious capital, government bonds also "offer … unparalleled scope for purely financial accumulation" (Saad-Filho, 2015, p. 11), which has several implications for the dynamics of the economy. In Marx's words:

> As with the stroke of an enchanter's wand, it endows unproductive money with the power of creation and thus turns it into capital, without forcing it to expose itself to the troubles and risks inseparable from its employment in industry or even in usury. The state's creditors actually give nothing away, for the sum lent is transformed into public bonds, easily negotiable, which go on functioning in their hands just as so much hard cash would. (1991, p. 919)

There are implications, for example, in regard to the distributive impacts and the active role of government bonds. Basically the surplus value produced is shared with the state as tax revenue that then becomes the source for interest service on the public debt, i.e., government bonds traded in private financial markets. Thus, by issuing bonds, the state can actually distribute surplus value among the bondholders. The claims on surplus value come from industrial capitalists, financiers in the form of interest and dividends and so on, and government bondholders in the form of debt service. Yet the single source of surplus value is based on the employment of productive labour and the scope for exploitation. In fact, even if rates of investment and profits themselves

[114] See also Davis (2012) and Henwoods (1998). Specifically on precification, fiscal revenue causes public bonds to be perceived as less risky than private titles in general, which then grants the use of public bonds as a benchmark in relation to other forms of debt (Trindade, 2012, pp. 99-100).

decline, financiers can still increase their income from returns on their holdings of private and public debt, as well as from charging fees for transactions in these financial securities.[115]

Despite their fundamentally different analyses of the capitalist economy, the common discussions of bond-financed deficit expenditure within neoclassical and post-Keynesian economics basically have a concern about how these bonds are perceived as net wealth so that their effects on aggregate demand (AD) and real variables can be examined. The wealth effect engendered through the financial markets is at the core of these analyses. However, government bonds do not offer equal opportunities for gains for all through financial investments. The state borrows primarily from its richest citizens and pays them interest. This is an option over the policy of taxing capital as a whole, as this option necessarily drains from the mass of surplus value produced in the entire society. Intriguingly, the relationship between bond-financed expenditures and their effects on AD, as well as their intensity, i.e. multipliers, is the object of endless dispute in the heterodox and neoclassical schools while the return on government bonds to the bondholders and the followed distributional impacts are less often a reason for dispute and critique.

This is not to say that government bonds do not affect AD, or to enhance the narrow idea of a dichotomy between bad finance versus good productive investment. Rather, it is to highlight that government bonds underpin both the capitalist state and the credit system, and both are based on a mode of production predicated on exploitation, social exclusion and inequality. Government bonds support the centralisation of wealth, especially in the hands of large capitalists and speculators who acquire control of public finances. Thus at the same time that these bonds are an important tool through which the government is able to intervene in the financial market, fiscal and monetary policy are in fact submitted to the financial market's imperatives.[116]

As discussed in Chapter 2, when it comes to public finance, there are different modalities to finance the state, such as monetisation, taxation and sale of government bonds. The Keynesian Revolution gave the last a different status in which monetary authorities can manage the mix between currency issuance and government bonds with different maturities in an attempt to keep the cost of government financing and inflation low, while trying to use the government bonds to, as already mentioned, manage AD, i.e., the macroeconomic management of an economy that by no means leads

[115] This in turn can further lead to decline in rate of investment. See Bakir and Campbell (2010, 2013).
[116] In the case of indebted states, the policy space is even narrower.

spontaneously to full employment. However, for the reasons above, government bonds are a very convenient modality of state finance for capital, as the debt can be serviced. The requirement to service the public debt at the expense of provision for public goods and human needs shows the private profitability priority. Davis (2012) writes:

> The imperatives of saving the currency and maintaining the credibility of the public debt for private investors serve as the ax for cutting off desperate human needs and subduing democracy … rather than rational planning for long-term growth … Ultimately public resources must serve private profit. (p. 55)

In this context, the debate to achieve a balanced budget is one full of ironies; at stake are the fiscal costs frequently associated with welfare and investment in state-owned enterprises, together with potential tax increases to guarantee more appropriation of the surplus value produced in society, while little is done to intervene on the gains of the "brood of bankocrats, financiers, rentiers, brokers, stockjobbers, etc" (Marx, 1990, p. 920) whose fortunes expand via and feed on the holding and trade of governments' bonds. The argument is universal, and somewhat tautological: nothing can be done regarding this aspect because the demand for government bonds needs to be guaranteed and stimulated.

In sum, as titles of fictitious capital, government bonds function to extrapolate the needs of state financing to either cover deficits or stimulate AD. As mentioned above, the three main functions played by government bonds summarise what is behind the active role played by government bonds. These functions show the extent to which government bonds are the keystone of financial markets, and a source of financial accumulation, rather than a more fortuitous aspect of state finance. They support the institutions and processes that mobilise social resources, creating and allocating IBC and other titles of fictitious capital. In doing this, government bonds "underpin both the emergence of capital in general through the financial system, and the management of accumulation by the state… For these reasons, [they] can neither be avoided entirely nor paid off in minimally complex capitalist economies" (Saad-Filho, 2015, p. 12).[117]

Still, only an empirical analysis considering countries' particularities and their forms of insertion into the international monetary and financial order can show the diverse developments of these functions. This will be done for Brazil in the next

[117] See also Henwood (1998), p. 23; Krätke (2005), pp. 8–9; Streeck (2014).

chapters of this thesis.

3.6. Conclusion

Fictitious capital in Marx is what is known today as financial securities. The formation of fictitious capital, i.e., its very existence, is the outcome of a process of capitalisation which occurs because within capitalism any stream of potential revenue can be capitalised as an asset and further traded. Interestingly, its relevance and the implications for the credit and financial systems within a Marxist analysis go hand in hand with criticisms of the usefulness of the adjective *fictitious,* as the base for both is the understanding (or not) of the critical role played by finance in driving production further and thus expanding values.

The understanding of this category cannot be based on the literal meaning of the term *fictitious*, namely, something not real or true, but imaginary or fabricated. The term should be understood as adjectivising the term capital in an attempt to emphasise that this kind of capital has features that are, to a certain extent, different from the definition of capital itself. That is, the term *fictitious* seeks not only to differentiate this category, namely fictitious capital, from capital, and from its derivations (industrial capital, commercial capital, money-dealing capital, financial capital, IBC and so on), but also to emphasise the very specific relationship that this capital has with the production and distribution of surplus value.

Thus the task when studying fictitious capital, as opposed to other forms of capital, is not only to distinguish the specific function of each of the forms of capital from its general function as capital. It is necessary to explain that this term does not mean that the capital does not exist, but that Marx is dealing with a category that, especially from the individual perspective, enhances the expansion of wealth in society in the format of titles of fictitious capital, even when the creation of value in production may or may not happen. Equally important, it is a capital that appreciates or depreciates due to factors that are to a certain extent unrelated to what happens in the capital valorisation sphere. Its existence and accumulation imply, on one hand, an understanding of the credit system and its ability to enhance accumulation of capital and simultaneously stretch itself with a degree of relative autonomy from real accumulation, but, on the other hand, it means financial instability and speculative booms.

A financial security, within a Marxist framework, guarantees a stream of income that draws upon the surplus value produced in the economy as a whole. From this

perspective, securities give rights to appropriation of expanded value in the same way that capital lent out at an average interest rate would. Nevertheless, in Marx, these financial securities are not capital and do not represent any capital. They have a capital value that is simply the capitalised yield. Therefore, it is a capital value that is wholly illusory, varying quite often independently of changes in the process of reproduction of capital in general. In short, the value of financial securities is regulated differently from that of real capital. Further, these titles of fictitious capital represent the past and the future, but never the current process of surplus value production; their potential returns are contingent upon value that has yet to be produced and realised.

This particular take on how these securities are not capital underpins the entire relevance and implications of this category for the credit and financial systems. The development of lending and borrowing relationships based on formation of fictitious capital means the creation of a number of claims on future property or financial revenues without a predetermined outcome in terms of real accumulation. In other words, the capitalisation of a stream of income as an asset followed by its trade means the advancing of a surplus even though the origins of this surplus do not lie in such an exchange. Further, titles of fictitious capital turn simple money as money credit relations into IBC credit relations, regardless of the production of surplus value.

It follows that the dynamics of the accumulation of fictitious capital and real capital may potentially diverge from each other. The formation of fictitious capital therefore may not be fully aligned with real accumulation. Fictitious capital necessarily leads to a financial sector that may be capable of financing overproduction and generating instability and speculative bubbles. Its existence is potentially destabilising, as its accumulation may run ahead of capital and, ultimately, fail to realise its own, as well as other, chains of obligations. This instability is further exacerbated by the fact that the capital value of these titles, being determined by capitalisation, is intrinsically speculative since future interest rates and returns on fictitious capital cannot be guaranteed *ex ante*. This gives space for gains and losses due to capital-value fluctuations resulting from gambling behaviour by the holders, which may lead to rises in the asset price and potential speculative booms and crises. In Marx, instability, speculative bubbles and crises are directly linked to the production and appropriation of surplus value. Fictitious capital is the nexus that explains how and why.

Yet fictitious capital is not an accidental distortion in the credit system. Fictitious capital can increase capital directly engaged in production and further

generation of surplus value, offering a significant power to stretch accumulation. As IBC, it allows for competitive accumulation and productivity increase on a larger scale. The formation of fictitious capital means an opportunity to raise money outside of borrowing from a bank; the case of shares, for example, provides a clear opportunity for mobilisation of capital via these titles. There is also the aspect of the constant transformation of fictitious capital into LMC and vice versa, which is further helped by the process of speculation. This aspect added to the development of forms of hoarding into investment in fictitious capital, leading to the financial system subsuming the hoarding function of money, making these titles and their hoarding and trade an essential feature of the availability of LMC in the economy. This in turn is related to credit liquidity in the system. Thus, the existence of fictitious capital allows room for the centralisation of monetary funds to be augmented by financiers and stockjobbers. In short, fictitious capital can mobilise capital, shift resources across circulation of money as money and money as capital, facilitate new investment, finance production and consumption, raise profitability, and even dislocate the threat of crisis through debt-financed consumption or public sector spending.

Within this framework, as a form of double-entry bookkeeping and as titles to fictitious capital that can appropriate surplus value via the tax system to guarantee future resources to finance the issuance of national debt, government bonds are highly liquid and safe securities which support private financial markets. Essentially, these bonds become a means of intertemporal intermediation and ballast for the financial system as a whole. This intermediation is crucial for government management of credit and, as a consequence, its ability to intervene in a country's macroeconomic stabilisation. However, due to the reasons above, it is possible to outline other important functions of government bonds which are not associated with bond-financed deficit expenditure and the fiscal stimulus, as discussed in Chapter 2. These functions are more directly related to financial market liquidity, portfolio diversification, returns on real and financial investment, and price-setting of real and fictitious assets in general. Although these functions vary according to spatial, institutional and historical conditions, the underlying common feature is that, via government bonds, the national wealth serves to provide liquidity for private financial markets and is a form of exploitation of the public for private gain on a systemic level by means of the financial system.

Two important consequences emerge out of this framework. Firstly, government bonds also offer unparalleled scope for purely financial accumulation and their trade in the secondary markets reveals a great deal of speculation and mobilisation of resources, which illustrates the state and its monetary policy to be intrinsically linked to the dynamics and development of financial markets. Secondly, government bonds underpin both the emergence of capital in general through the financial system, and the management of accumulation by the state. Thus government bonds are an active and not a passive consequence of public deficits. Further, government bonds and, therefore public debt, can neither be avoided nor paid off in minimally complex capitalist economies.

Chapter 4 – Financialisation, state and government bonds

4.1. Introduction

Over the last thirty years or so, the world economy has been undergoing several transformations that have given rise to the phenomenon of financialisation. Despite the complexities and particularities of these transformations, which have happened in different spheres – economic, political, ideological and cultural – one stark feature is undeniable: the increase in financial transactions has frequently come at the expense of productive activities. The definition of financialisation varies significantly depending on which approach or focus is being used. Further, discussions trying to understand financialisation are frequently entwined with the ways in which the state responds to the phenomenon and the historical processes that paved the way for financialisation. This has led to scholars arguing that the term is ill-defined or used without a clear agreed-upon definition.

This chapter argues that the term is not ill-defined. At an abstract level, financialisation refers the expansion of titles to fictitious capital, intensively, through rises in asset prices, and extensively when attaching itself to new activities. In capitalism, there is a tendency towards a financialised economy because of the extension of the logic of capitalisation through the financial markets and accumulation of financial (fictitious) capital. From this perspective, financialisation involves structural transformation of capitalism and the process of capital valorisation. That is why financialisation involves so many different aspects. Studies of financialisation very often lack a systemic approach to the phenomenon, which in turn has led to the poly-semantic character of the term. Each study claims to be defining financialisation when, in fact, they are dealing with specific transformations that the process of financialisation has.

A further issue in the financialisation literature is the absence of discussions about the public debt. In general, monetary and fiscal policies make their appearance in analyses of financialisation from the perspective of how government policies are less efficient or constrained by free capital flows or capital mobility. However, it is necessary to shift the focus from how financial markets impose constraints on governments to how government strategies and management of capital accumulation

assume and perform different functions in a financialised economy: as I have argued since Chapter 2, government bonds have assumed a broader role as an instrument for devising monetary policy and consolidating the financial system.

This chapter makes this clearer by showing that since the transformations of the 1970s, government bonds have become essential to central banks that use them daily to control market liquidity and stabilise the currency. Further, in a context of floating exchange rates and the presence of several national currencies, government bonds are used to mitigate and protect the country against investor speculation, usually by accumulation of foreign exchange reserves and their use as hedge mechanisms. These aspects are not about constraints, but the use of government bonds to manage and keep financial markets stable and liquid.

Although one can argue that this is not new, the available systematisation of suitable frameworks to analyse this is scanty and, quite often, very closely associated with both the idea of constraints and a definition of financialisation that is limited to financial liberalisation and/or financial deepening. As titles to fictitious capital, government bonds are a powerful tool through which the government is able to intervene in the financial market, whilst being also used in more diverse ways to fulfil investors' motives in these markets. From this perspective, government bonds must be understood and contextualised as performing new roles in the economy, which go beyond those associated with fiscal policy. States' increasing involvement in financial transactions through the myriad new financial instruments (which enable rather than constrain the exercise of statecraft within the contradictory demands of growth, stability and distribution under financialisation) is defined as *financialisation of the state.*

Following this introduction, the chapter is organised in three sections. The first defines financialisation at a more abstract level, emphasising the broad set of changes and transformations involved in this process – which explain why definitions of financialisation can vary significantly. It also reviews historical events crucial to understanding and explaining the forces triggering and driving financialisation, highlighting issues such as the dollar hegemony and changes in monetary policy since the 1960s. The second section discusses the state and government bonds in the context of financialisation. It addresses studies showing the active role played by government bonds, arguing that this should be understood as financialisation of the state. The last section concludes.

4.2. Towards a definition of financialisation

4.2.2. Financialisation: multiple meanings or lack of systemic analysis?

The proliferation of titles to fictitious capital reflects what Fine (2013a) calls the reign of interest-bearing capital (IBC), as discussed in the previous chapter. From the moment at which capitalised income as an asset begins to be traded, financial markets are supplied with bundles of cleverly designed claims that serve as further exchange as IBC. Thus, capitalisation of revenue and its trade are not only the incorporation of a variety of credit relations into the orbit of fictitious capital, but also the dominance of IBC over other capitals, even when the creation of surplus value does not lie in the exchange of some of these assets. The reign of IBC expands intensively through rises in asset prices and extensively when attaching itself to new activities from which it was previously absent or barred by virtue of regulation or a form of provision.

Financialisation is this movement of expansion of titles to fictitious capital, intensively and extensively. As argued by Saad-Filho (2015), "the economy becomes *financialised*[118] when the logic of IBC dominates the production, circulation and distribution of (surplus) value" (p. 8, emphasis added).[119] Essentially, the logic of capitalisation is extended through both new (e.g., credit default swap (CDS) and collateralised debt obligation (CDO)) and traditional forms of fictitious capital, and also through the proliferation of derivatives exchanges (e.g., future and options contracts). This explains why financialisation is associated with the development of financial instruments and continuous financial innovations.

The expansion of IBC in an extensive way, i.e., incorporating activities which were not under the financial logic before, can be seen in the expansion of credit aiming to sustain consumption in a context of stagnating wages and unemployment, and in the absorption of services by financial activities and instruments in the private sector in a context of cuts in welfare provision and privatisation of social services (Fine, 2013b, p. 6). These aspects are captured by the literature discussing financialisation in a diverse number of ways and using different frameworks, even though the objective is the same: to understand the financialisation of everyday life (Bryan, Martin, & Rafferty, 2009; Gloukoviezoff, 2006, 2007; Langley, 2004; Lapavitsas, 2009c, 2013; Martin, 2002;

[118] See also Saad-Filho (2010).

[119] The approach and definition of financialisation, based on Marx's theory of capital accumulation and its complex theory of forms of capital in exchange, is seen in Fine (2009, 2010a, 2013a, 2013b), Paulani (2011, 2014), Rotta and Teixeira (2016), Saad-Filho (2015) and Teixeira and Rotta (2012). An approach along these lines and considering the role played by fictitious capital is seen in Brunhoff (2003), Chesnais (1998a, 1998b, 2001, 2005) and Hudson (2010).

Montgomerie, 2006). This expansion is also further seen in the proliferation of new financial instruments such as CDSs, CDOs and derivatives, as a result of changes in regulations and the structure of the banking and financial markets in the last thirty years (Lindo, 2013), and of the advent of new technology, especially computing and telecommunications, that favoured the development of financial activity and financial innovations (dos Santos, 2009a, p. 23; Lapavitsas, 2009b, p. 91; McNally, 2009, p. 91).

The extension of the logic of capitalisation and the development of mechanisms for transactions with titles to fictitious capital is a precondition of financialisation, and both are central to the contemporary credit system whose dynamic revolves around fictitious capital creation, speculation and its transactions. Within financialisation, IBC expands to the economy as a whole, from financial operations of industrial enterprises (productive capital) and merchant's capital to activities unrelated to capital – health, welfare, transport, pensions, housing and other forms of unproductive labour engaged in economic and social reproduction (Fine, 2009, 2010a, 2013a, 2013b).

Capitalism has an intrinsic tendency towards financialisation as the expansion of financial markets tends to draw every credit relation into investment in fictitious capital, preferably short-term ones.[120] The expansion of financial markets was initially documented by studies analysing the development of the market for corporate control and the shareholder revolution leading to a change in management priorities; this was part of a literature examining the rise in income from financial investments made by non-financial corporations (NFCs) (see below). Business decisions based on financial markets driven by shareholders' priorities (which affected production) also led to a literature discussing production restructuring and investment behaviour (see below). Still related to the shareholder revolution, financialisation and the expansion of financial markets are indirectly discussed by the literature examining the difference between bank-based and market-based financial systems (Lapavitsas, 2013, pp. 129-132) and the shift towards the latter, which presents decentralised ownership and operations with short time horizons, on the basis that they are more conducive to growth (Grabel, 1997).[121]

[120] The short-term aspect becomes a strong feature of financial markets, and is associated with the markets' functions (Lapavitsas, 2013, pp. 129-132). This short-termism dominance has misled scholars into using it as the definition of financialisation. See, for example, Medialdea (2013).

[121] For empirical studies on different sources for the finance of investment across countries see Mayer (1988) and Schaberg (2000). See Lapavitsas (2013) for an insightful approach to the differences between banking and financial systems and the emergence of the latter.

The driver of this tendency is the perception that money creates money, which is supported by the fact that "financial markets can create their own assets at low cost, trade them cheaply, and compress time boundlessly" (Saad-Filho, 2015, p. 8). This perception has logical foundations. As highlighted by Rotta and Teixeira (2016), the circuit of industrial capital can be abbreviated to M-M' precisely because the motive behind capitalist production is not the expansion of the production of commodities as use-values but rather the valorisation of value (p. 13). The labour exploitation, while essential, is at the same time a burden for the process of expansion of values. Through the development of the financial market, the credit system as it exists now reaches an ideal form in which the production process, "a necessary evil of the purpose of money-making" (Marx, 1992, p. 137), is definitely and ingeniously exteriorised from the money circuit of capital, with highly sophisticated mechanisms of credit. Yet there is only one source of surplus value and it is based on the employment of productive labour and the degree of exploitation.[122]

Thus, capital tends to expand while separating from and undermining its own material basis, namely the production of new use-values through labour exploitation (Paulani, 2014, p. 782; Rotta & Teixeira, 2016, p. 5). The separation does not mean a disconnection from the process of production of values, but "the introduction of layers of mediation between the forms of value and their respective material supports". This tendency is the autonomisation of abstract wealth, which "finally reaches its most advanced stage with the formation of fictitious capital" (Rotta & Texeira, 2016, p. 14).[123] From this perspective, "financialisation is hardly a new phenomenon in circuits of capital. What is perhaps relatively new is the extent to which finance has found its way into most, if not all, of the nooks and crannies of social life" (Fine, 2013b, p. 2).[124]

The making of money out of money (an illusion perpetrated by the financial markets) not only means a detachment from the heavy and onerous requirements of productive valorisation, but also that the formation of fictitious capital constitutes a form of financial wealth.[125] As discussed in the previous chapter, this affects the availability of loanable money capital, and the trade of these titles ends up acting as a

[122] See previous chapter.
[123] See also Teixeira and Rotta (2012). In Chesnais (2001), for example, the predominance of the IBC circuit consists of placing financial results from investments in operations with fictitious capital. However, this does not mean a lack of interest in producing surplus values; in fact, corporate finance, for instance, aims to obtain the maximum profitability of the capital employed in the movement M – C … P … C' – M' (p. 57).
[124] See also Fine (2010b), p. 13.
[125] This is closely associated with what Lapavitsas (2013) sees as the accumulation of surplus value in the form of hoards, which is the key to understanding modern finance (p. 53).

mechanism to allocate resources, which, at a more concrete level, affects the liquidity of the system.[126] To a certain extent, this also challenges the conventional view that the emergence of the financial market and its components, i.e., money and capital market, is mainly due to the necessity of funding entrepreneurial projects.[127]

As previously discussed, the expansion of IBC, in extension and volume through fictitious capital, sometimes drives the accumulation of real capital and sometimes occurs at its expense. However, finance – and in particular, fictitious capital – is not parasitical or an intrusion, but an integral element of the capitalist economy. It emerges endogenously from real accumulation and is a necessary outgrowth of accumulation. Yet, the opportunities for financial investments and accumulation through the expansion of financial markets tend to leave industry under-invested and under-performing, thus reinforcing the tendency towards financialisation.

For Toporowski, for example,

> far from concentrating resources on industrial renewal, financial innovation concentrates on mobilising financial resources to sustain rising asset prices: *in an era of finance, finance mostly finances finance*. The concentration of financial resources on purchasing financial assets and the extension of credit for such purposes results in financial inflation. (Toporowski, 2010, p. 92, emphasis in original)

In this light, despite playing a vital role in expanded reproduction, the accumulation of financial securities "has taken priority, both systematically and in policy, over the accumulation of industrial capital" (Fine and Saad-Filho, 2010, p. 168),

[126] Chesnais' (2001) financialised regime is conceptualised as a production of more advanced economies, the US and UK, in which finance is understood as an autonomous force emerging from the need for *liquidity*. For Chesnais, this is not new and its roots predate the 1929 crisis (p. 56).

[127] Despite coming from a different logical development – based on the contradiction in the banking system which sees short-term deposits and long-term loans leading to a struggle for liquidity, Lapavitsas (2013) sees the emergence of the financial system as a source of liquidity for banks. For him, while the banking system is more narrowly conceived, emerging out of the endeavour to appropriate surplus value through loaning idle funds, the reason for the emergence of the full-fledged financial system is to provide liquidity for banks. The result is banks trading titles to fictitious capital to diversify their loans with activities in the highly liquid capital markets. Still, when banks engage in financial activities for liquidity, their practices "help to stretch accumulation, and thus to generate the flows of loanable capital" (p. 126) … "From this perspective the money market is, at its core, an interbank market for reserves of liquidity" (p. 131). Lapavitsas also argues that although capital markets exist as a source of liquidity for banks and act as a "lever for the formation of loanable capital", they do this in a "highly mediated and precarious way" (p. 119).

leading to the dramatic development of finance as well as of national and international financial systems since the 1970s.

In this sense, although a more systematic analysis of financialisation started with discussions on the reasons and drivers behind this phenomenon (see below), one can argue that many of the initial studies tried to grasp this shift towards finance and focused on both: i) examining this aspect from the perspective of the stock market boom followed by shareholder value orientation, changes in managerial practices and investor behaviour (Aglietta, 2000; Aglietta & Breton, 2001; Aglietta & Rebérioux, 2005; Boyer, 2000, 2005; Froud, Haslam, Johal, & Williams, 2000; Froud, Johal, & Williams, 2002; Lazonick & O'Sullivan, 2000, 2002; Petit, 1999); and ii) although not necessarily separated from i) above, on understanding and explaining the shift from productive to financial investment based on empirical findings showing financial investment by non-financial businesses rising while the accumulation of capital goods was declining[128] (Krippner, 2005; Orhangazi, 2007, 2008a, 2008b; Stockhammer, 2004).[129]

Stockhammer (2004) makes the important observation that this shift does not mean a replacement of physical investment by financial investment. This would be macro-economically impossible: "Marxian and Keynesian theories, in particular, have stressed the role of accumulation and investment as the driving force behind growth" (p. 719).

Given the broad range of the financialisation process, its proof cannot be reduced to purely empirical discussions about financial investment overtaking real productive investment. The shifting balance between finance and industry can also be seen, for example, in the fact that the daily volume of foreign exchange transactions rose from $570 billion in 1989 to $5.3 trillion in April 2013 (Bank for International Settlements, 2013). According to the McKinsey Global Institute, the world's financial assets grew from $12 trillion in 1980 to $225 trillion in 2012. The Institute's data also shows that while the value of the world's financial assets (equities, government and corporate debt securities and bank deposits) increased almost 18-fold between 1980 and 2010, the world's GDP was limited to a growth of just 500% (6-fold) during the same period (Lund et al., 2013). Finally, the financialisation of everyday life mentioned above can also be considered proof of this shift.

[128] The majority of these analyses looked at developed economies, especially at the US economy and the fall in US corporate profits.
[129] For an analysis in more general terms of the unprecedented expansion and transformation of monetary and financial elements, see Boyer and Saillard (2002) and Harvey (2005).

Thus, financialisation and formation of fictitious capital involves an accumulation of wealth which differs qualitatively and quantitatively from the accumulation of capital, yet is connected with the latter as it needs a real source of value to draw on its returns. As a consequence, in addition to instability and speculative booms and bubbles, the formation of fictitious capital has also led to malaise in the production of surplus values: credit can stretch accumulation, but it can also have destructive and predatory effects (Lapavitsas, 2013, p. 122). Still, it must be noted that this does not mean the proliferation of usurious credit and borrowing relations.

The shift from productive to financial activities and the predominance of financial wealth in the last three decades has led to profound changes in the field of productive valorisation, especially considering the relationship between labour-capital, the production process and sector organisation. Examples of these three aspects can be found, respectively, in a) processes of flexibilisation and precarisation of labour; b) downsizing and distribution of managerial goals and changes in (attacks on) labour rights, manufacturing restructuration, for example, Toyotism and just-in-time; and, c) capital centralisation and productive plants' relocation. The initial studies on financialisation focusing on understanding and explaining the rise in incomes from financial investments by NFCs and the decline of the accumulation of capital goods was certainly followed by the study of labour relations in this context (Ashman, Fine, & Newman, 2010; D. Harvey, 1989; Lazonick & O'Sullivan, 2000; Newman, 2009; Paulani, 2014). There is also, within this line of literature, a more specific debate on corporate finance and productive process restructuring, revealing a conflict between the financial markets' objectives and increasing profitability (Froud et al., 2000).

Changes in the process of valorisation of capital were also accompanied by a discussion of how the state leads and responds to the outcomes of the phenomenon.[130] This is because, despite exhibiting a tendency towards it, financialisation is not a spontaneous outcome of the development of the credit and financial system. Thus the state not only responds to the process, but, while performing its old role regarding the management of accumulation, also drives it. At a more concrete level, there are necessary complex prerequisites to foster financialisation as well as manage and direct the profoundly transformative implications that come with it. In the words of Saad-Filho (2015):

[130] The role of the state is directly discussed in the last section of this chapter.

> [I]n order to consolidate a financialised capitalism, the state must promote the concentration and centralisation of social resources in the financial system, regulate and support the financial institutions, shepherd the liberalisation of financial flows, manage the exchange rate, implement conducive fiscal and monetary policies, and impose the legal, material and ideological hegemony of finance in the economy and, not least, within the state itself. (p. 8)

As financialisation evolved, the literature covering other facets of the process also began to flourish. Basically, from the mid-2000s onwards, the discussion became more comprehensive and started examining the financialisation process and its impact upon the world economy. At this moment, the literature in the field also began to focus on the crises and transformations caused by financial expansion and liberalisation, and the resulting proliferation of new financial instruments.

The broadened discussion then gave space to debates about the transformation of the world economy and its financial institutions, the roles of the state and classes, and the responses of nation-states to financialisation. Epstein's (2005) *Financialisation of the World Economy* is seminal in this sense.[131] The next benchmark for discussions on financialisation was the 2007-8 crisis. The search for the causes of the crisis led to approaches by one side casting a different light on old issues and the other side focusing on aspects previously under-examined, mainly transformations in the nature of financial institutions' operations. See Lapavitsas (2008, 2009b, 2009d, 2010, 2013).[132]

The different focuses, frameworks and definitions when examining financialisation explain how its definition can vary significantly, leading some authors to state that financialisation has been either ill-defined (Stockhammer, 2004, pp. 720-721) or used "without a clear agreed-upon definition" (Orhangazi, 2008b, p. 3).[133] However, definitions of financialisation ranging from a more micro level to the increase

[131] The diversity of the analysis found in Epstein's book led him to define financialisation as the "increasing role of financial motives, financial markets financial actors and financial institutions in the operation of the domestic and international economies" (Epstein, 2005, p. 3). His definition has since been widely used.

[132] See also Blackburn (2008, 2011) and Panitch & Konings (2009). Many of the studies on the 2007-8 crisis address the changes in financial institutions and the financial market, including changes regarding established and entry of new players in the financial market, from the perspective of the proliferation of new financial products and activities, with an emphasis on how the various financial institutions (including commercial and investment banks) have become intricately linked through a web of financial transactions, bets and hedges that is almost impossible to untangle. See, for example, McNally (2009) and dos Santos (2009b). Toporowski (2000) had already reported this plethora of financial instruments at the beginning of the 2000s.

[133] See also Hardie (2012, p. 19), Engelen (2008), and Montgomerie (2006, p. 304). For views on how financialisation has become a buzzword, see Dore (2008, p. 1097) and Dowd (2004).

in political and economic power of a particular class, including discussions on the transformations in the international monetary system and world economy, have, in fact, a clear common point: the relationship between industry and finance is a fundamental part of it. In Marx, this relationship is developed within the theory of capital accumulation and the different forms of capital operating in exchange. The tendency towards a financialised economy within this approach is, as discussed above, the extension of the logic of capitalisation through the financial markets and accumulation of financial (fictitious) capital. In this movement, the development and expansion of financial markets tend to draw every credit relation into (financial) investment in fictitious capital, and the logic of IBC dominates the production, circulation and distribution of (surplus) value. At such an abstract level, the term financialisation has a clear and well-defined meaning.

From this perspective, the shifting of balance between industry and finance witnessed in the last thirty years means the restructuring of capital as a whole. This is why financialisation involves so many different aspects, such as changes related to the increasing role of financial motives, financial markets, financial actors and financial institutions; the ascendency of shareholder value as a mode of corporate governance; the growing dominance of capital market financial systems over bank-based financial systems; the explosion of financial trading with a myriad of new financial instruments; the increase in housing finances; the increasing participation of non-financial firms in financial markets; the explosion of household debt and the trading of this debt; the increase of political and economic power of a particular class grouping; the diminishing of the role of government while that of the markets has increased; the changes in how banks operate; and the transformations in the nature of operations of financial institutions. Nonetheless, these are not the definition of financialisation itself, and none of them represent its most distinctive, or main, defining feature.

To put it another way, the countless definitions of financialisation reflect the fact that the financialisation literature has been broached "in a piecemeal fashion dealing in it bit by bit rather than as a systemic property" (Fine, 2010b, p. 13). The matter becomes more complicated when attempts to define financialisation become entangled with the analyses of the historical processes that paved the way for the tendency towards financialisation. The section below tackles this issue more directly.

4.2.3. Financialisation: a troubling concept in troubled times[134]

A systematic discussion of financialisation started with Arrighi (1994), but the initial discussion of financialisation can be traced back to Sweezy & Magdoff (1972). The monopoly capital theory points out that the lack of effective demand in monopoly capitalism and the tendency towards stagnation lead to the emergence of a financial superstructure which is inherently instable and can harm the real economy. Despite the problems of monopoly theory, the works of the monopoly capital theorists, i.e. the Monthly Review School, triggered discussions on the reasons for and drivers of financialisation (Baran & Sweezy, 1966; Foster, 2010; Sweezy, 1994; Sweezy & Magdoff, 1987).

Arrighi (1994) strengthens the discussions on the drivers of the financialisation phenomenon, pointing out that expansion and restructuring of the capitalist world economy occurs under the leadership of particular blocs (p. 9).[135] The approach taken by Arrighi (1994, 1999, 2003, 2004), which is part of the World Systems Theories (WSTs),[136] establishes that financial expansion is a recurring phenomenon in the world system, which coincides with the weakening of the leadership of the world's political configuration and leads to the rise of a new hegemonic power. The shift towards a financial expansion is the result of money capital being increasingly directed to financial rather than productive investments because of overaccumulation of capital (Arrighi, 1994, pp. 5–9). In this sense, for Arrighi, "financialisation has always been the predominant response to the overaccumulation problem of the established organizing centres of the system of accumulation" (Arrighi, 2004, p. 536). The channelling of money capital into financial activities and the slowdown in material expansion on a global systemic level result in competition for capital accrued in financial markets,[137] which, for some scholars, may be explained, or even verified, through the fall in the rate of profits (Li, Xiao, & Zhu, 2007).

The Regulation theorists also contributed to the debate on the rise in financial

[134] For a thorough review of the definitions of financialisation followed by an assessment of their pros and cons, see Krippner (2004). For analyses looking at the development of scholarship on financialisation, see Sawyer (2013) and Zwan (2014).

[135] Arrighi's analysis highlights the global character of capitalist accumulation and the importance that a hegemonic state –with its competitive advantage in the productive sector and military edge providing support for trade dominance among other things – has in the world's political configuration. For a critique, see Gowan (2004).

[136] See also Arrighi and Silver (1999) and Wallerstein (2000). See Wood (2005) for a critique of WSTs and their approach to financialisation and the US hegemony.

[137] In the Monthly Review literature it is the monopoly character that makes firms channel their resources into financial investment; in the WSTs literature it is the exacerbated competition, i.e., the inter-capitalist competition, which then becomes crucial in leading to financialisation.

transactions and the current importance of finance and capital markets when preoccupied with the crisis of *regime of accumulation* in the so-called Fordist era. For these theorists, Fordism, which was crucial and underpinned economic growth in the post-war era, was in crisis. The reason for the long downturn is found in the decline in productivity attributed to the working class successes in the post-war period. A new regime of accumulation ought to have emerged after a period of transition in which various alternatives would compete among themselves (Aglietta, 2000; Boyer, 2000, 2005). Brenner (1999), who sees the stagnation period as lasting longer and as the result of overproduction due to competition (Brenner, 1998), disagrees and provides an insightful critique of the Regulation School's account of the decline of Fordism and the emergence of a post-Fordist regime.

Stockhammer (2004) proposed a further development of the post-Keynesian theory of investment based on growth/profit trade-off. While concluding that financialisation potentially played an important role in reducing investment, he also warns that the slowdown in accumulation from the late 1960s to the early 1990s was not necessarily a result of it, arguing that the shareholder revolution and development of a market for corporate control shifted power to shareholders, changing management priorities, and leading to a reduction in the desired growth rate (Stockhammer, 2004, pp. 720, 738).[138]

Leaving the particularities of each of the approaches aside, one can argue that, overall, these analyses report an unprecedented expansion of financial transactions against the background of a lengthy period of stagnation and crisis.[139] However, the entire period cannot be taken as a long, uniform and homogenous slowdown of the accumulation of capital, as a result of the financialisation process. The slowdown of the

[138] Despite considering several changes that contributed to the process of financialisation itself, including structural changes in the internal power structure of the firm, Stockhammer opts for a narrow definition of term, i.e., the increased activity of non-financial businesses in financial markets, which then allows him to measure financialisation by the corresponding income streams (Stockhammer, 2004, pp. 720–721). See Stockhammer (2007) for a broader discussion on financialisation and a critical assessment of the Regulation School.

[139] The boom years from the mid-1940s to the late 1960s saw the '*Golden Age*' of capitalism. This boom was essentially the result of what is termed Keynesian compromise or the Keynesian era. The latter emerged out of both the New Deal in response to the Great Depression, and the recovery after World War II, largely associated with the state-led economy in the US. It was a period of post-war prosperity, at least for the Western economies that managed to keep stable growth through a mix of welfare statism, Keynesian management and wage relations control. This period is well known for very favourable conditions for accumulation of capital and strong government intervention and expenditure, especially in developed countries. However, by the 1960s, profit rates had started to decline, accumulation of capital slowed down and tension between labour, firms and finance grew. This was the beginning of the end of rapid worldwide growth, and resulted in the structural crisis in the 1970s (Duménil & Lévy, 2001, pp. 147–148, 2005b, p. 9; Harvey, 1989, p. 135; Palley, 2005, pp. 20–21).

1960s that led to the structural crisis of the 1970s and then to the changes in the global economy that took place mainly in the 1970s and 1980s, cumulatively contributed to triggering the financialisation process. This is the core of the debate behind the literature on financialisation mentioned above.

A more detailed discussion of this is beyond the scope of this thesis, but it is important to state that, while a tendency towards stagnation in a monopoly capitalism, the overaccummulation problem and the over-capacity and increased global competition in the non-financial corporate economy (particularly in manufacturing) of advanced capitalist countries, may well have led to the increase of financial transactions, these factors do not justify or alone explain the process of financialisation. For this, it is necessary to look at how the crisis was dealt with (see below), at the global production trade becoming dominated by multinational (see below), at the technological revolution in information process that occurred in the 1970s (Boyer, 2000; Duménil & Levy, 2004, pp. 104–105; Lapavitsas, 2009b, pp. 106–107, 2013; Petit, 1999), and at how finance and the credit system developed during the boom years of the mid 1940s to the late 1960s, finally having its way with the Euromarkets and the collapse of the Bretton Woods agreement (see below). These aspects have been discussed extensively by the literature on neoliberalism.[140]

As to how the crisis was dealt with, the 1970s witnessed the dismantlement of what is defined as the Keynesian welfare state, or simply, Keynesianism; it was assumed to have failed, and neoliberal economic[141] ideas were strengthened. The changes that took place ranged from the social relations and techniques of production to institutional and legal frameworks supporting capitalist accumulation, to social relations between key economic entities. The key driver of these changes was the quest for profit, in this specific case, the quest for recovery profits. Nevertheless, and not

[140] The set of transformations that happened from the 1970s onwards are often examined and understood as the rise of neoliberalism. See Clarke (2005), Munck (2005) and Palley (2005) for classical liberalism's influences on neoliberalism. See Mirowski (2013, 2016) and Mirowski and Plehwe (2009) for the history of neoliberalism as a thought collective organised in terms of production of knowledge and political action since the Mont Pèlerin Society was founded in 1947. See Duménil and Lévy (2005a, 2005b) for the extent to which the rise of neoliberalism is the result of a class project.

[141] Neoliberal ideas, as the intellectual and political product of a self-conscious movement, as argued by Mirowski and Plehwe (2009), had its scientific foundations in modern liberal economics, as argued by Clarke (2005). For Munck (2005, p. 65) "neoliberalism successfully articulated neoclassic economics theories with a liberal individualist conception of political freedom". Helleiner (1994), when arguing that deregulation and liberalisation promoted by states (especially the US and the UK) started as early as the 1960s, understands that at the cognitive level the ideological shift from post-war Keynesianism to a neoclassical policy framework was strengthened. See Lapavitsas (2005) for the division within economic theory that contributed to confirming the 'failures' of Keynesianism and the 'strengths' of mainstream economic theory.

uncoincidentally, Keynesianism's replacement – greatly influenced by modern liberal economics which reasserted the free market and non-intervention of the state[142] – involved measures and changes that contributed to pave the way for the interests of finance.

Here, three aspects of these changes should be highlighted: i) changes in monetary policy to tackle inflation (see below); ii) privatisation followed by the entry into the provision market of new institutional investors (such as pension funds) trading in financial assets and purchasing equity in non-financial corporations (dos Santos, 2009a; Foster & Magdoff, 2009; Lapavitsas, 2009b; Stockhammer, 2009); and iii) changes in the process of work and the labour market, including not only the mergers and acquisitions witnessed in the 1960s, but also another round of transformation in the process of work in the 1980s which led to the hostile takeover movement of the 1980s, subsequent issuing of junk bonds and new strategy of downsizing and outsourcing. Together, these played an important role in increasing the pressure for financial liberalisation (Harvey, 2005, p. 164; Lazonick & O'Sullivan, 2000).

The issue of inflation is important to this chapter's argument as it is related to changes in monetary policy. When inflation began to erode the savings accumulated in the post-war period, several analyses started looking at how financial institutions sought higher yields by trading financial securities, especially in the money market; they also examined the deregulation of the financial sector which allowed banks to invest in higher-yield and riskier assets, eventually leading to the development of trade with financial securities in general (Duménil & Levy, 2004; Duménil & Lévy, 2005b, 2005a; Lazonick, 2010; Lazonick & O'Sullivan, 2000; Panitch & Gindin, 2012; Panitch & Konings, 2009). Deregulation of the financial sector mainly meant removing controls on interest rates and the quantity of credit that could be advanced, establishing and promoting new capital markets, removing non-competitive practices among money market brokers and dismantling controls on international flows of capital (Lapavitsas, 2009b, p. 107). By 1979, with the Volcker shock, the Keynesian policies were finally dropped and replaced by monetary policy focusing mainly on price stability using

[142] It was a very specific type of non-intervention: government intervention in economic life which, it was felt, threatens freedom and interferes in competitive capitalism, seen as the necessary base for capitalist democracy (Munck, 2005, p. 65). Lapavistas (2005) notes that despite the decline of Keynesianism, the fiscal and monetary techniques used by government in the neoliberal era have retained a Keynesian character. However, this new interventionism is very different from the Keynesian era: "The new interventionism draws on the second major development within mainstream economics, namely the gradual incorporation of information, institution and social customs into microeconomic analysis" which has offered "scope for the economic analysis of the occasional, or even systematic, failure of free markets to deliver optimal results" (p. 30).

money supply initially and then high interest rates (Duménil & Levy, 2004, p. 157; Duménil & Lévy, 2005a, p. 25).

These changes are also part of, and to a certain extent a consequence of, the development of finance in the post-war period. The boom years of the mid-1940s to the late 1960s saw finance and private financial institutions, which after the Great Depression had been suppressed by a more active role of the state and several regulations,[143] attempting to regain their space and actively "building a new international framework at a distance from domestic regulations" (Duménil & Lévy, 2001, p. 147). In other words, the Keynesian compromise did not stop the long-term trends in the transformation of capitalism. As pointed out by Lapavitsas, the 1960s had already seen the deregulation of interest rates and lending activities, which resulted in rapid financial innovation and a host of new financial assets (Lapavitsas, 2008, p. 13). Helleiner (1994) shows how, by the late 1950s, private lending and investment were increasing, causing a significant growth in cross-border flows and integrations of domestic financial markets. Further, by the 1960s, the formation and strengthening of an unregulated international financial market, i.e., the Eurodollar market (see below), had formed a hub for speculation and a profitable field of financial investments (Helleiner, 1994, pp. 91–94; Panitch & Konings, 2009, p. 69).

Steps towards the re-emergence of the power of finance can also be seen in the 1960s with the waves of mergers and acquisitions, and, as a consequence, increasing reliance on financial institutions. The development of finance and financial markets can certainly be found in the large NFCs predominantly managing to finance their own expansions through retention of their profits (Corbett & Jenkinson, 1997, p. 74; dos Santos, 2009a, p. 6; Lapavitsas, 2009b, p. 102; Lazonick & O'Sullivan, 2000, p. 14; Sweezy, 1942, p. 267). This led to a reliance on the issuing of bonds and stocks rather than on banks, and then on stock repurchases (which have skyrocketed in the last thirty years) as the key mechanism for maintaining stock prices (Brenner, 2002, pp. 192–195). Along the way, large corporations in possession of temporary idle capital also engaged with the markets as lenders, providing consumer lending through the issuances of store-credit and credit cards and diversifying into fields such as mortgages, trading in equities and other financial instruments (Foster & Magdoff, 2009, p. 54; Lapavitsas, 2009b, p. 108). This contributed to more pressures for capital mobility and less restrictive regulations.

[143] Krugman (2009) calls the period after the Great Depression up to the 1970s the age of 'boring banking' (n.p.).

Another key moment strengthening finance and laying the groundwork for financialisation involves the rise of the Eurodollar market and the breakdown of the Bretton Woods system over the late 1960s and early 1970s. The Bretton Woods system[144] represented the international monetary order at the time and marked the hegemony of the US dollar in international finance. Its collapse in 1973[145] and the implementation of floating exchange rates increased capital mobility and led to demands for broad financial deregulation and new monetary practices (see below). By 1974, for example, the US had added new components to the floating exchange regime, such as liberalisation of capital. This created a fertile ground for foreign exchange trading, risk hedging and speculation (McNally, 2009, pp. 57–58).

Moreover, the collapse of Bretton Woods did not cause a decline of the US hegemony and weakening of the dollar. Rather, the enhancement of American structural power and deliberate detachment of the dollar from gold (Panitch & Gindin, 2012, pp. 12–13) made the dollar the world money[146] and gave the US "monocratic power over international monetary affairs" (Gowan, 1999, p. 19). At the centre of this change remained the concern with the "dollar's substantive value", which now revolved around issues such as "fluctuating exchange rates, or the US balance of payments, or even the price of Treasury bonds". In other words:

> [T]he dollar's growing centrality as the measure of value in the global circuits of capital after the collapse of Bretton Woods made the American state's responsibility for sustaining capitalist confidence in the dollar more critical than ever. (Panitch & Gindin, 2012, p. 14)

In this context, the financial markets, which already were a "key vehicle for the

[144] On the Bretton Woods Agreement see Blecker (2005), D'Arista (2005), Dickens (2005), Strange (1997), Toporowski (2005, 2010), and Vasudevan (2009). For a critical account of the foundation of Bretton Woods see Panitch and Gindin (2012).

[145] The beginning of the dismantling of the Bretton Woods system had its origins in the 1960s with the rise of financial speculative operations inside the US with financial and NFCs. By the middle of the 1960s, the system had started presenting clear signs of exhaustion (Belluzzo, 1997; Braga, 1997; Fiori, 1997; Miranda, 1997; Panitch & Gindin, 2012). For details on the collapse of the Bretton Woods system considering the flow of dollars out of the US, the US deficits and the creation of unofficial and unregulated markets, i.e., the Euromarkets, in London and Singapore, see Toporowski (2010), pp. 18-19 and Duménil and Lévy (2005b), p. 10-11.

[146] See Goldberg and Tille (2008, 2009) for how the US dollar continues to play a hegemonic role in international trade. See Gourinchas and Rey (2005) for how the US share of liquid liabilities is still the largest. See IMF (2016, n.p.) for how the share of claims in US dollars in the allocated reserves portion of the total official foreign exchange reserves is still the largest (63.39 percent, followed by 20.18 percent in euros and 4.69 percent in pounds sterling).

diffusion of American policy abroad through the liberalization of regulations on capital flows" (Panitch & Gindin, 2012, p. 15), also became a channel for central banks and private investors to move their funds to the US independently (whether because of a structural dependency on the U.S or seeking a safe investment in the U.S. financial markets), thus contributing to the American hegemony. With the internationalisation of capital markets,

> the US could take advantage of the depth and breadth of its financial markets to supplement its trade in goods with its international financial services. This is why US trade deficits no longer led to a crisis of the dollar. (Panitch & Gindin, 2012, p. 16)[147]

In this light, the post-Bretton Woods scenario not only implies that fluctuations in interest and exchange rates were again tied to the dollar, but also that, in a scenario of convertible international currency, US Treasury bills became the most secure asset in the financial system and the use of the US interest rate becomes a reference, which induced the use of dollar-denominated assets for financial transactions. The dollar would then provide instantaneous liquidity at any moment, guarantee security in risky operations and serve as unity of virtual wealth for the present and future period. In performing these functions the dollar became the common denominator for an exponential process of financialisation. Essentially, its central functions became those of security and arbitrage (Tavares, 1997, p. 34; Tavares & Melin, 1997, pp. 63, 65).

As a result, there was a voluntary, but not unsurprising, coordination with the dollar by the relevant central banks around the world. The generalised dollarisation of the credit system entailed a process of monetary policy alignment that had started in the 1980s, when the financial systems of domestic economies became internationalised, and was very much based on monetarist prescriptions of the time (Tavares, 1997, p. 29). In this process, which had as its benchmarks the Volcker Shock in 1979 and the implementation of a conservative, deflationary and costly monetary policy to overvalue the dollar, the dollar restored its hegemony and become the denominator of the credit system (p. 34).

Both the problems and the solution that arose with the breakdown of the Bretton

[147] For emerging economies that are not issuers of world money, this arrangement had complicated consequences (discussed in the next sections and then explored in more detail in the case of Brazil in the next chapters).

Woods Agreement would cause changes in the entire global economy, from developed to developing countries (Toporowski, 2005, pp. 109–110). It rehabilitated the American international banking system and induced allegedly more prudent international borrowing based on the development and integration of capital markets around the world and the development of domestic bond markets (Strange, 1994). Such financial development was envisaged by the IMF's structural adjustment policies in the 1980s, not directly, but based on the assumption that private enterprise would naturally flourish in the absence of government regulation and, in order to expand, these enterprises would need financial resources. In this way, the new, post-Bretton Woods Agreement monetary order had in its origins the idea of financial liberalisation and capital market integration, which by the end of the 1980s was broadly encouraged under the name of financial deepening.[148] This is crucial to understanding the process of financialisation in developing countries discussed in the next chapter.

The new monetary order, relying on financial liberalisation, also allowed the proliferation of financial institutions, which had been impeded to flourish under the Bretton Woods Agreement. By the 1980s, the rise of financial institutions and the parallel centralisation of capital reached new heights (Duménil & Lévy, 2005b, p. 13).[149]

For all the reasons above,

> for the past 30 years, financialization has prospered through, and under the guise of, the promotion of the market (i.e., private capital) in general. In practice, this means the subordination of social reproduction to financial market imperatives in everything from privatization and deregulation to inflation targeting and the diffusion of personal credit. (Fine & Saad-Filho, 2010, p. 163)

The tendency towards financialisation was allowed and reinforced by the new course of capitalism after the 1970s. Financial activities were made more attractive: regulations impeding the development of finance and financial instruments were repealed; an increasing number of financial institutions and their range of new activities were encouraged by new regulations regarding capital mobility; gradual involvement of

[148] See Chapter 2.

[149] Duménil and Lévy (2005b) also emphasise the extent to which the activity of these financial institutions combined the traditional banking and insurance activities with new functions on an unprecedented scale. This aspect is insightfully captured by Lapavitsas' (2008, 2009b, 2009c, 2010, 2013) analysis of financialisation.

non-financial corporations in financial activities was made easier by these new regulations and the changes in the labour process; technological advances in information and computing revolutionised the trade in financial assets across continents; and changes in the valorisation process, including a severe discipline of labour, sustained the shift from productive to financial activities. Thus the set of policies defined under the broader umbrella of neoliberalism consolidated and freed the trends in the transformation of capitalism, namely the rise of finance and financial institutions as well as the centralisation of capital. This is why it is difficult, if not impossible, to untangle the financialisation process from neoliberal policies. During the period of boring banking, finance started reappearing as in the conglomeration mania of the 1960s, and then with neoliberalism's deregulation it was fully unleashed.

From this perspective, financialisation should not be understood as a reflection of continuing difficulties in production. The process is two-way. If anything, it is most likely that financialisation and the proliferation of financial securities are themselves "the major causal factor in low levels of real accumulation and in undermining conditions of economic and social reproduction conducive to such accumulation" (Fine, 2010a, p. 8). Further, the main problem in understanding financialisation as the result of thirty years of steady stagnation, downturn or crisis is due to the fact that the period from the 1970s to the present has not been homogenous. This kind of particular understanding ends up being convenient for definitions of the term based on the narrow dichotomy between production and finance, in which the latter is mainly a parasitical sphere.

However, as argued by McNally (2009), the period since the 1970s can roughly be understood as having three phases: a period of crisis and declining profitability from 1973 to 1982 (rooted in declining profitability emerging before this); a period of sustained recovery, real accumulation and increased profit rates (albeit not at the levels of the 1950s and 1960s) from 1982 to 1996/7; and then a period of accumulation sustained only by huge credit-expansion from 1997 onwards.[150] The first period is definitely associated with changes and transformations that consolidated the tendency of capitalism towards financialisation, but the periods that followed reflect how financialisation submitted the entirety of social reproduction to the imperatives of the financial market, leading not only to low levels of accumulation, but also to a complex interconnected web of changes, which could drive the accumulation of real capital as

[150] Some geographic specificity is needed, but McNally's (2009) division refers roughly to the global economy.

well.

Despite a literature that focuses mainly on the US and developed economies, this section shows that the transformation that started in the 1970s and its consequences were always global.[151] The changes in the process of work and labour were global, and so was the demand for high levels of liberalisation and deregulation, not only by the financial sector, but also by direct investment and international trade. In developed economies, with a developed banking and financial sector, many of the changes focused on change and lifting regulations regarding financial activities. On the other hand, in developing economies adherence to this regime was compulsory, with great help of the state, as evidenced by numerous treaties, adjustment programmes and the like led by the US, G7, IMF and World Bank.

4.3. Government bonds as the *subject* of financialisation

States have always had an active role managing the economy. The transformation of the state apparatus in a financialised context means that the state was present at the very beginning of financialisation to foster the process and at the times of crises to ensure reproduction of the mechanisms that lead to the same crises in the first place, whilst also underpinning the process. Essentially, the state fosters the process, moderates its effects and sustains it (Fine, 2010b). However, in analyses of financialisation government bonds are relegated to a secondary position or no position at all. This seems an odd outcome considering that, first, government bonds are titles to fictitious capital and, second, the state is present in this debate.

One explanation is related to the fact that analyses of the role of the state essentially focus i) on the impacts that financialisation has on government policy, that is, on the effects of international finance on domestic policies (reducing the concept of financialisation to financial liberalisation and cross-border capital flows (see below)); ii) on how the state manages the adverse effects of financialisation (e.g., bailing out financial institutions or mediating the new forms of capital and labour conflict); and iii) on how the state fosters financialisation, for example, promoting financial liberalisation (Helleiner, 1994; Krippner, 2011; Sobel, 1994).

In this context, when the debate on public debt is included it often appears from

[151] Financialisation scholarship examining the rise of financialisation in developing economies and its general tendencies and characteristics is relatively new and scanty. See Becker, Jäger, Leubolt and Weissenbacher (2010), Bonizzi (2013), Kaltenbrunner (2010), Lapavitsas (2009a), Painceira (2009). For Fine (2010b), financialisation literature has been "practically non-existent for developing countries" (pp.13-14).

the perspective of the public indebtedness resulting from when the state steps in to afford the costs of financialisation and/or when profligate behaviour requires large-scale expenditure cuts to placate the bond markets (Engelen et al., 2011, pp. 28, 179). Nevertheless, this is a narrow view of the role that public debt plays within financialisation. The basis for this view is related to both an even narrower understanding of government bonds as mainly an outcome of public spending (i.e., expansionary fiscal policy), and to a literature that quite often does not assume a meaningful financial sector and banking sector, as discussed in Chapter 2.

The ways states fostered and directed financialisation is not explored here. Nor is the way governments manage the impact of financialisation on the economy, which is often seen in debates over financial crises. Inputs to contribute to the understanding of the role of government bonds in the financialised scenario are sought in literature examining the impact financialisation has on the government. This literature frequently focuses on the extent to which government economic policies are subservient to the financial market, which is linked to analyses of how investors (often international) constrain government policy choices.

The literature analysing the impact of financialisation on government policy is discussed in three stages. The first one is the review of the most common approach, discussing the extent to which financial liberalisation and financial globalisation restricted government policy. The second presents a discussion of a literature that is still very much attached to the idea of restriction/constraints and financial liberalisation but, at the same time, gives more space to changes happening in domestic financial markets. Interestingly, this literature pays more attention to government bonds. Finally, the discussion turns to approaches exposing how government bonds perform a more active role and how monetary policy is closely associated with this. Despite not directly conceptualising or offering a different framework to analyse government bonds, these approaches are used to corroborate the discussions in Chapters 2 and 3, i.e., government bonds assuming an even broader role in achieving a sound economy that is not associated with financing government deficit spending.

Moving to add the last theoretical piece in the analysis aimed for by this thesis, it is then argued that governments exercise statecraft according to what is necessary to manage the accumulation of capital under financialisation. That is, in the same way that NFCs have increasingly been involved in financial transactions through the myriad of new financial instruments, the state also became involved with financial activity in

order to run its own apparatus and manage state affairs and the economy. Along the lines argued by Lagna (2015, 2016a, 2016b), this can be understood as *financialisation of the state*.

Lagna (2016a) discusses how the Italian state used market-based practices and technologies of financial innovation (in this case, derivatives), to window dress the public deficit, achieve the objective of complying with Economic and Monetary Union (EMU), and join the EMU in 1999 on the basis of false accounting (pp. 167-168). This is related to the shift from traditional practices of public-debt governance in favour of a market-oriented approach that started at the end of the 1980s under the umbrella of public debt management, discussed in Chapter 2.[152] Lagna (2016a) rightfully defined this phenomenon as "a key facet of the financialisation of the state," which is nothing other than "the restructuring of state institutions and power in line with the growing influence of finance in today's world" (p. 168).

Starting with the first stage mentioned above, several studies have examined the changes since the 1970s from the perspective of financial globalisation or globalisation of finance (Andrews, 1994; Cohen, 1996; Drezner, 2001; Eichengreen, 1994; Goodman, 1992; Kurzer, 1993; Rodrik, 1997, 2000, Sinclair, 1994, 2005; Stiglitz & Ocampo, 2008; Strange, 1994, 1996; Webb, 1991). Cohen (1996), for example, states that "financial globalization has put governments distinctly on the defensive, eroding much of the authority of the contemporary sovereign state" (p. 270). His analysis follows his earlier (1993) work in which he argues that there is an intrinsic incompatibility of exchange-rate stability, capital mobility and national policy autonomy, which he calls the "unholy trinity" (p. 147):

> The problem … simply stated, is that in an environment of formally or informally pegged rates and effective integration of financial markets, any attempt to pursue independent monetary objectives is almost certain, sooner or later, to result in significant balance-of-payments disequilibrium, and hence provoke potentially destabilizing flows of speculative capital. To preserve exchange-rate stability, governments will then be compelled to limit either the movement of capital (via restrictions or taxes) or their own policy autonomy (via some form of multilateral surveillance or joint decision making). If they are

[152] This shift from traditional practices of public debt governance in favour of a market-oriented approach was promoted by the IMF, OECD and World Bank. Essentially, they asserted that states should focus on the development of their bond markets and behave as any other actor in the marketplace. See Giovannini (1997), IMF and World Bank (2001, 2003), OECD (2002) and Chapter 2.

> unwilling or unable to sacrifice either one, then the objective of exchange-rate stability itself may eventually have to be compromised. Over time, except by chance, the three goals cannot be attained simultaneously. As capital mobility has increased, so too has concern about its implications for the effectiveness of independent monetary and fiscal policies. (Cohen, 1993, p. 147)

Goodman (1992) presents a more specific analysis focussing on monetary policy and how its autonomy is limited by deepening financial interdependence. The work of Obstfeld and Taylor (1997), following the theoretical foundation of the unholy trinity, then made the concept of "macroeconomic trilemma" or "impossible trinity" well-known in international finance literature. Rodrik (2011), arguing that financial globalisation and the free movement of capital flows are the reason why economic crises become more frequent, develops the "political trilemma" which shows that democracy, national sovereignty and global economic integration are mutually incompatible.

In general, one can argue that monetary and fiscal policy make their appearance in the analyses of financialisation from this perspective of how state policies are less efficient or constrained by free capital flows or capital mobility. Eichengreen (1994) stresses that "the capital mobility characteristic of the late twentieth century makes independent economic policy goals extremely costly and potentially unsustainable politically" (p. 60). Looking to the future, he asserts: "countries that have traditionally pegged their currencies will be forced to choose between floating exchange rates on the one hand and monetary unification on the other. …. The middle ground of pegged but adjustable rates and narrow target zones is being hollowed out" (pp. 5-6).

Despite different nuances in the approaches above, the lack of macroeconomic policy autonomy is still mostly based on a few stylised facts laid down by Webb in 1991. Essentially, when short-term markets are highly integrated, changes in investors' expectations of national interest rates or exchange rates lead to large capital outflows which immediately affect exchange rates. Further, the difference between domestic and international interest rates[153] leads to arbitrage operations and causes fiscal policy inefficiency as well as appreciation of domestic currency as capital floods in due to international investors taking advantage of the higher domestic interest rate. The

[153] The reason for differentials should be examined considering the specificities of country. Overall, it is frequently associated with the movement of exchange rates and the monetary regime in place, but the roots of high domestic interest rates can be much broader. See next chapter for the case of Brazil.

appreciation, in turn, causes deterioration of the exports and increased imports, which then leads to trade deficit (p. 318). Webb also points out that "expansionary monetary policy can trigger capital flight and lead to a collapse in the value of the currency" and restrictive monetary policy can "push the exchange rate up sharply, thereby damaging the government's standing with exporters and causing a more severe slowdown than intended" (p. 319). By 1994, this lack of autonomy was also associated with the growing power and pressure brought to bear by credit rating agencies (Sinclair, 1994, 2005).[154]

Despite arguing in terms of international capital mobility imposing constraints on macroeconomic policy, Webb's (1991) analysis is interesting; he argues that a different kind of monetary and fiscal policy emerges when international capital market integration puts governments in a position in which they have to reconcile national macroeconomic objectives with international market pressures. For Webb, in the 1950s and 1960s governments had to focus "on balance-of-payments financing and exchange rate coordination-policies that are inherently international". At that time, coordination of monetary and fiscal policies was negligible. However, when the fixed exchange regime was abandoned in the early 1970s, the "increasing capital mobility made it impossible for governments to stabilize exchange rates without subordinating monetary policy to that end. Thereafter, coordination efforts began to focus on monetary and fiscal policies – policies that had traditionally been considered 'internal'" (pp. 310-311).

Although some studies argue that national governments still have a degree of flexibility in a context of capital liberalisation and capital market integrations (Andrews & Willett, 1997; Kapstein, 1994), the constraints imposed on national states by financial markets is undeniable. It follows that the literature also focuses on the possibility of achieving or recovering state economic policy autonomy, encompassing from independent central banks to tax reforms and capital control. Yet, a quick look at the last thirty years calls into question whether solutions were found and if room for manoeuvre actually exists. Further, it is alarming, especially considering that changes in fiscal and monetary policy are almost unanimously acknowledged, that none of the studies above give a detailed account of what is happening in the domestic financial markets, especially the government bond markets.

The question of the relationship between economic openness and the efficacy of

[154] Friedman (1995), commenting particularly in relation to the Mexican bonds' downgrading by Moody's, writes: "[T]hat makes Moody's one powerful agency. In fact, you could almost say that we live again in a two-superpower world. There is the US and there is Moody's. The US can destroy a country by leveling it with bombs; Moody's can destroy a country by downgrading its bonds" (n.p.).

fiscal and monetary policy can be traced back to Fleming (1962) and Mundell (1963). Nevertheless, these and several other discussions in the 1990s examine fixed and floating exchange rates as well as currency mismatches with great emphasis on cross-border flows based on trade. This is valid, but the landscape is fairly different now. As Steil and Litan (2008) write:

> [N]early $2 trillion worth of currency now moves cross-border every day, roughly 90 percent of which is accounted for financial flows unrelated to trade in goods and services—a stunning inversion of the figures in 1970, when 90 percent of international transactions were accounted for by trade. (p. 3)

Borio and Disyatat (2011, 2015) have also attempted to change the view that cross-border flows are associated with deficits in current accounts and global current account imbalances. Their empirical work has shown and emphasised that current accounts, by definition, only measure the transactions that relate to trade in goods and services and income transfers; all other asset transactions are excluded. As a result, it reflects only a small part of global financial flows. For them, the net financial flows that arise from trade in real goods and services "exclude the underlying changes in gross flows and their contributions to existing stocks, including all the transactions involving only trade in financial assets, which *make up the bulk* of cross-border financial activity" (Borio & Disyatat, 2011, p. 8, emphasis added).

Contributing to give a more comprehensive approach to how financial markets discipline the state and its economic policies and under what conditions, there is a literature that focuses on domestic financial markets, particularly on government bond markets. For Hardie (2012), in fact, what is missing in the literature examining financial integration and financial globalisation is "close attention to the detailed workings of financial markets, including domestic markets" (p. 24).[155]

Hardie (2012) argues that a financialised government bonds market is a market beholden to investors' entry and exit positions as well as to their ability to trade risk. This not only increases the cost of borrowing but also makes a crisis more likely and more severe (pp. 4-5). His conclusion – which is also a critique of the public debt management literature supportive of the need to develop government bond markets to maximise government borrowing capacity – is that investors' speculative behaviour

[155] Hardie links this absence of domestic market analysis to an excessive focus on international markets by the international political economy literature (pp. 9–10).

reduces government borrowing capacity. Based on a comprehensive study of institutional financial investors, Hardie's work shows the extent to which their activities, whether holding government bonds for up to 30 years or using short-term bonds to hedge funds, are linked to speculative and private gains while limiting government borrowing capacity.

Nevertheless, Hardie's work still utilises the idea of constraint, in this case in terms of how governments must bend to the will of bond market vigilantes (Hardie, 2012, p. 8). This echoes the influence on his work of Mosley (2003), who also examines the pressures that the international financial markets place on government bond markets. Based on an empirical work showing that governments borrow not only to compensate for revenue shortfalls but also to fulfil other economic management objectives (thus revealing the extent to which the sovereign debt market government bonds are both an important source of financing for governments and a central part of large institutional investors' portfolios), Mosley's main argument revolves around how financial investors negotiate the interest rate at which they are willing to buy bonds and may punish governments by demanding an increase in this rate (pp. 17-18).

Steil and Litan's (2008) work also aims to capture the state's role within the context of financialisation with a focus on domestic markets. They argue that economic statecraft needs to account for the purchase and sale of financial assets (basically bonds, shares and derivatives), that have outpaced the purchase and sale of traditional trade (p. 3). They coined an interesting term, *financial statecraft*,[156] but unfortunately narrowly defined it as the "aspects of economic statecraft that are directed at influencing capital flows" (p. 4)

Steil and Litan's (2008) work, having a limited understanding of the international monetary and financial system, falls short in several aspects and does not offer a broader understanding of government bonds in a financialised economy and the financialisation process itself. Still, when arguing that financial crises are crises of currency mismatches, it does criticise the traditional wisdom[157] that countries, especially emerging economies, should have among their measures to deal with currency mismatch at home a "higher government priority to 'developing' domestic bond markets and 'encouraging' the availability of hedging instruments" (p. 104). Their critique runs along similar lines than Hermann (2002) for the specific case of Brazil:

[156] See also Armijo and Katada (2015) for a discussion on financial statecraft in emerging economies, albeit without emphasis on government bonds and public debt.
[157] This is again related to the public debt management approach.

there is no plausible economic reason that justifies the use of public debt as a privileged hedge instrument for the common uncertainties of financial markets (p. 17).

Steil and Litan (2008) also criticise the extent to which governments use government bonds to mitigate and protect their country against investor speculation by accumulating foreign exchange reserves,[158] especially if governments opt to market their securities abroad in dollar and other major currencies, a costly form of insurance (pp. 110-111). This issue came about because of the dollar hegemony after the collapse of the Bretton Woods Agreement and the fact that most of the world is not able to borrow abroad in its own currency, as investors demand securities denominated only in currencies for which there is a liquid international market – a view that echoes the literature discussing the "original sin" (Eichengreen & Hausmann, 1999, 2005; Eichengreen, Hausmann, & Panizza, 2002).

The literature on this is significant and is not confined only to foreign reserve accumulation. To a certain extent the discussion goes back to the financial and commercial liberalisation aspect, but now it is possible to grasp the idea of how government bonds perform a more active role via monetary policy. Moving to the third set of stage of the analysis, one can argue that, on one hand, the liberalisation of trade facilitating the continual reorganisation of production chains and trade channels increases the demand for world money to facilitate production and circulation of goods. On the other hand, enhanced access to international financial markets due to liberalisation of capital markets makes the use and holding of world money appealing. It is useful for funding cross-border production chains, joint ventures, and mergers and acquisitions; and for responding to overcapacity difficulties in home markets by either entering foreign markets or shifting accumulated surplus value into the financial sector (Smith, 2005, p. 230).[159] Further, financial activities, such as hedging exchange and interest rate risks, emerge as a need due to the problems of internationalisation of production (Powell, 2013, pp. 143-144). This then leads to an increase in private sector external debt and difficulties in keeping the national currency stable.

For national governments, the above scenario means capital inflows in world money leading to a constant need to sterilise[160] these inflows to either keep the

[158] Foreign reserve accumulation will be discussed in more details when dealing with the case of Brazil.
[159] See Kaltenbrunner (2010) and Powell (2013) for how corporations exploit the different opportunities resulting from across the hierarchy of states and the use of world-money.
[160] "Sterilisation is the practice of issuing public debt by the Treasury or the central bank with the aim of absorbing increases in domestic liquidity (the money supply) due to surpluses of foreign exchange" (Painceira, 2009, p. 13).

requirements of inflation targeting (IT),[161] i.e., controlling imported inflation, and/or guaranteeing international competitiveness, i.e., trade purposes,[162] in a context of pegging exchange rate. Further, complementing the initial point made by Steil and Litan (2008), because of the domestic arrangement underpinning the financial integration in emerging economies, the need to accumulate foreign reserve has been adopted by these economies as a policy of self-insurance since the financial crisis of the 1990s (Datz, 2008, p. 84; Lapavitsas, 2009a, p. 14; Painceira, 2009, p. 12).[163] Put simply, in the absence of structural change of global finance since the crises of the late 1990s, foreign reserves were used as a defence against sudden reversals of capital flows (Painceira, 2009, p. 12), particularly after short-term borrowing began to rise again (Lapavitsas, 2009, p. 14).[164]

Interestingly, returning to the debate over the unholy trinity and the constraint issue, the mainstream economic literature makes a similar argument. It is argued that the financial crises in the late 1990s, marked by sudden reversals of capital flows, resulted in the emerging economies using global liquidity as an opportunity to increase their foreign exchange reserves in order to cope with exchange rate depreciation due to capital flights; this accumulation gave them more flexibility and control over their monetary policies (Reinhart & Reinhart, 2008, p. 22).[165]

Overall, the need to sterilise and the accumulation of foreign reserves create an intrinsic linkage between reserve accumulation and national public debt.[166] However, this is not only the result of financial liberalisation and integration. This link should be examined together with the dollar hegemony, problems of dealing with exchange rates in a liberalised scenario, development of domestic financial markets and how non-financial and financial investors (domestic and foreign) respond to the context of financial deregulation, financial innovation and access to foreign credit. Not all of these

[161] See Chapter 2 for definition of inflation targeting.
[162] This is particularly true for East Asian countries.
[163] Although the accumulation of foreign reserves has also been associated with regular current account surpluses in emerging economies, empirical evidence shows that the self-insurance policy has been applied by countries with no current account surpluses, but with significant short-term capital flows, notably in Africa (Alves, Boufounou, Dellis, Pitelis, & Toporowski, 2016). The IMF and the World Bank have also enforced this policy independently of any current account surpluses (IMF, 2008, p. 37).
[164] Kaltenbrunner (2010) and Painceira (2010) argue that the huge accumulation of international reserves has not been a guarantee against speculative and unstable capital flows or large exchange rate depreciation in developing countries. See also Akyüz (2012). Hermann (2002) argues that the use foreign reserve to contain the tendency to devaluation led the floating regime to lose its function of estabilising the balance of payments (p. 16).
[165] The mainstream debate has also focused on ascertaining the optimal level of international reserves (Bussière & Mulder, 1999; Nowak, Hviding, & Ricci, 2004) and the measurement of the social cost of reserve accumulation (Rodrik, 2006).
[166] For a discussion on the link between reserve accumulation and public debt, see Painceira (2009, 2010).

aspects necessarily lead to constraints on government policies, but rather to a state that actively manages and controls these markets. Sterilisation and accumulation of foreign reserves, which both have the issuance and trade of government bonds as their core, should lead to "the construction of a tactical scenario in which financialised practices and incentives not only limit but also enable governments to exercise statecraft through market based channels" (Lagna, 2016a, pp. 170-171). In this context, unlike the literature discussed in Chapter 2, countries increased their domestic borrowing within a financialised scenario not to engage in investment or cover their deficits, but to avoid increases in the money supply, control exchange rate and inflation, among other things.

Further, returning to the argument made in Chapter 3 regarding the extent to which government bonds, as titles to fictitious capital, offer unparalleled scope for purely financial accumulation, both sterilisation policy and accumulation of foreign reserves reinforce the short-term features of the financial market as the government reduces their bonds' maturity and increases their yields to guarantee investor demand (Becker, Jäger, Leubolt, & Weissenbacher, 2010; Hardie, 2011, 2012; Kaltenbrunner & Painceira, 2014; Medialdea, 2013; Mosley, 2003; Painceira, 2010; Saad-Filho & Morais, 2004). Essentially, given the differential between international and domestic rates, investors (both foreign and domestic in the financial and the non-financial sector) borrow in the international financial markets in order to invest in domestic capital assets such as government and private bonds, stocks, real estate and other securities. This demand is then met by the government's need to sterilise and accumulate foreign reserves.

Although one can argue that the discussion above leads to a focus on emerging economies, the 1990s debate on financial globalisation resulted in scholars examining the changes in the role of public debt in developed economies as well. In this case, government bonds began to be constantly used to sterilise fiscal resources to back up the movements in the money and foreign exchange market (Tavares & Melin, 1997, p. 65). In more general terms, the role of the public debt became directly linked to how government bonds sustained the securitisation of operations in the financial markets (de Mello, 1997, p. 20; Miranda, 1997). Particularly relevant in this case was the process of monetary and financial deregulation in the 1980s that facilitated the process of government deficit financing through the issuance of government bonds in the global financial market (Fiori, 1997, p. 91).

This literature also considers the changes in central banks' forms of management

that occurred with financialisation. The increasing trade in financial securities in the 1960s, as well as changes in the financial markets, brought difficulties in controlling liquidity for the central banks, especially for the Federal Reserve (FED). The development of the financial markets and financial innovations would be one more factor pushing for changes in the functions and operations of central banks. The FED's decreasing use of rediscount operations and reserve requirements as tools to control liquidity while increasing the use of open market operations (OMOs) can be contextualised within these changes (Braga, 1997, p. 201).

Along these lines, and looking at developed economies, the work of Gabor (2016a, 2016b) and Gabor and Ban (2016) is telling. Central banks' increasing use of repos as a monetary policy instrument and a source of information on market expectations is an example of the state assuming the broader function of managing the financial market. This can also be understood as the financialisation of the state and, therefore, the emergence of new practices enabling governments to exercise statecraft in a financialised scenario. At the core of repo operations are, once more, government bonds.[167]

For Gabor (2016a), state withdrawal from economic life since the 1970s meant that its role in financial life grew bigger in a very specific way:

> Sovereign debt evolved into the cornerstone of modern financial systems, used as benchmark for pricing private assets, for hedging and as base asset for credit creation via shadow banking. The state's role as debt issuer, passive and systemic at once, has been reliant, *beyond the arithmetic of budget deficits*, on the intricate workings of the repo trinity. (p. 27, emphasis added)

The concept of repo trinity[168] refers to the connection of financial stability with liquid government bond markets and free (deregulated) repo markets, showing the role that the state, as debt issuer, plays in banks' growing market activities. Interestingly, the state's growing role in financial life from this perspective began in the 1980s (Garbade, 2006),[169] but it was only in 1998, through the Committee on the Global Financial

[167] See Bank for International Settlements & Committee on the Global Financial System (1999) for how repo operations work and become of crucial importance for central banks in recent years.
[168] See also Gabor (2016b, pp. 19–21).
[169] In the 1980s, states facing increasing competition for international investors embarked on a project of creating modern government bond markets (Gabor, 2016b; Garbade, 2006). However, the literature on financialisation at the time initially focused on corporate finance and shareholder revolution, which can be understood as an outcome of a narrow definition of financialisation.

System (CGFS),[170] that "central banks subscribed to the policy goals of the repo trinity, arguing that financial stability in modern financial systems required global safe assets, issued in liquid government markets, 'lubricated' by free repo markets" (Gabor, 2016b, p. 4).[171]

The early 2000s was a crucial moment when the CGFS' discussion on financial stability in market-based finance made clear the need for "policy makers to identify a core market whose liquidity could be 'immune' to" (Gabor, 2016b, p.14). The report identified government bond markets as this 'natural' core market for the reasons mentioned in Chapter 3 – liquidity and safety. The IMF (2001) then supported this, arguing that "government securities can be seen as possibly providing public-good benefits – *beyond those associated with fiscal policy* – by playing a role in financial efficiency and perhaps also in financial stability by facilitating private risk management" (p. 81, emphasis added).[172]

The repo trinity emergence gradually grew after the transition from fiscal to monetary dominance in the 1980s and 1990s when the central banks became committed to price stability (Gabor, 2016b, p. 3). Again, the monetary and fiscal policy role of the 1950s and 1960s was at stake. The end of the Keynesian era is also understood as the shift from the state managing the aggregate demand via fiscal policy (broadly criticised as poorly theorised and highly politicised) towards a "scientific monetary policy", as argued by Leeper (2010).[173] For Gabor (2016b), this "strict separation also required central banks to step back from state's debt issuance, passing responsibility onto autonomous debt management offices (DMOs)" (p. 7). This corresponds with the rise of the public debt management literature at the end of the 1980s, discussed in Chapter 2. The debt management, focusing on low costs and risks, would have little concern with the 'old' broader macroeconomic goals of fiscal policy, while the monetary policy goal would be aligned with the financial investors' interests.

The link between monetary policy, government bonds and financial markets is key to challenging the idea of constraints/restriction on government policy. Not surprisingly, it echoes the point, discussed above, on the dollar hegemony and the

[170] Committee on the Global Financial System (1999a, 1999b, 1999c, 1999d).
[171] According to Gabor (2016b), "government debt collateralizes roughly two thirds of both US and European repo markets, the largest in the world (together amounting to USD 20 trillion by 2008)" (p. 3).
[172] In 2000, the US Treasury, following the Committee on the Global Financial System's (1999a, 1999b, 1999c, 1999d) lines, proposed that state debt issuance could be completely divorced from fiscal policy. "The state's debt issuing capacity mattered for capital market activities. The Treasury would continue to issue debt, thus meeting the demands for a core liquid asset" (Gabor, 2016b, p.16).
[173] See Chapter 2.

convergence of national economies around the globe towards a set of coordinating monetary and fiscal policies in the beginning of the 1980s. Although the monetarist experiment was disastrous, what followed next in terms of monetary policy still very much favoured and privileged financial interests. The critique from many heterodox economic approaches shows the extent to which the IT regime tries to defend financial interests under the guise of economic stability (Datz, 2008; Epstein & Yeldan, 2008; Painceira, 2010, 2010; Papadatos, 2009). As Kaltenbrunner (2010) wrote:

> By making inflation the primary goal of monetary policy, an inflation targeting regime assures financial markets that any inflationary risk to the real returns on their asset holdings will be minimized. In addition, it offers a predictable and standardized macroeconomic framework, homogenizing the criteria according to which the properties of domestic currencies can be assessed across the globe. (p. 305)[174]

Despite focusing on the repo market, Gabor (2016b) argues that there is a similar path for developed and developing countries: IT regime with interest rate management and, later, abandonment of credit controls and rapid financial liberalisation. The next step is then to promote the development of government bond markets, which sooner or later will be complemented with the liberalisation of the repo market.[175] The developments that follow would then *render* but not constrain the government bond market to "the functioning of market-based finance and by central banks' use of repos to implement monetary policy" (p. 3). In this context, the narrative of the critical role that repo markets play in the liquidity of government bond markets is part of a market-building approach which started in the US and was quickly adopted in Europe as states attempted to find solutions to the loss of fiscal dominance (p. 10).[176]

In light of the above, it follows that the state not only fosters financialisation or manages its contractions, or has its policies limited due to the impact of financialisation; it also has its policies and functions transformed. The transformation of the state in a

[174] The Regulationist School also sees the shift from an inflationary to a disinflationary (or even deflationary) monetary regime as one of the changes in regulation required for the productive/financialised type of regime of accumulation, which "enhances the difference between the rate of inflation in the productive sphere (which is kept low) and the rate of inflation in the financial sphere or the way the state budget is financed" and contributes to the rapid expansion of financial assets (Becker et al., 2010, pp. 227–228). See also Coriat (2006).
[175] See Gabor (2016) for the case of the US, France, Germany and the UK
[176] See also Blommestein and Turner (2012).

financialised context should also account for the fact that old state functions and policies may have acquired a different role. Financialisation of the state, in this last sense, is the reformulation of the state-finance nexus in line with the growing importance of financial markets and, in this context, fiscal and monetary policies from the 1970s are used to different ends.

In this sense, the fact that government bonds are used as forms of hoarding, hedge mechanisms, collateral and benchmark for investment should not be understood in terms of constraints on state fiscal policy. Rather, these practices reflect how government bonds in a financialised scenario are primarily used to manage banking and financial system liquidity, solvency and asset prices.

Some of the analyses mentioned in this section fail to look at a more active role by the state. This is due a relatively restricted understanding of the transformations that occurred since the 1970s. In the same way that financialisation should not be limited to changes in NFCs or financialisation of everyday life, it should not be reduced to capital liberalisation, cross-border capital flows or financial investor behaviour/motives either. These types of piecemeal definitions, as explained in the previous section, hinder the examination of the transformation of the state itself.

Generally, political economy scholars discussing state and economy policy in a context of financial globalisation do not explore what the integration of capital markets meant for government bonds and their use as an instrument for monetary policy. Studies on public debt in the main schools of thought in economics are also inattentive to government use of debt from this perspective. Similarly, studies on financialisation do not comprehensively discuss the changes in the government bonds market.[177]

Further, unfortunately, the debate over the restructuring of the nation-states through financialisation has been limited to whether they lost power to markets or not. However, as Fine (2010b) argues, the literature on financialisation needs to be extended to cover "the role of the state as regulator of the monetary and financial systems, and itself as a major agent in the provision of financial instruments, not least through its own indebtedness, paper bonds as a form of fictitious capital" (p. 13). That is why the term financialisation, as defined at the beginning of this chapter, is preferred to internationalisation, marketisation, liberalisation or globalisation when it comes to examining government bonds in contemporary capitalism. The definition presented in

[177] For example, Gabor (2016b) also argues that the more active role played by government bonds is a blind spot in the political economy scholarship on shadow banking, central banking or market-based banking (p. 3).

this chapter captures the analytical shift from a passive state that suffers the impact of financialisation and manages its effects to an active state that is transformed in order to underpin and pave the way for financialisation through its own indebtedness. This should be made transparent and taken into account by scholars and policymakers concerned with public debt in general and fiscal consolidation in particular.

4.4. Conclusion

Financialisation is the movement of expansion of titles to fictitious capital, intensively and extensively. The expansion of IBC in extension and volume through fictitious capital, i.e., incorporating activities which were not included the financial logic before, refers to the economy as a whole, from financial operation of industrial enterprises (productive capital) and merchant's capital to activities unrelated to capital such as health, welfare, transport, pensions, housing and other forms of unproductive labour engaged in economic and social reproduction. Further, financialisation and formation of fictitious capital involves an accumulation of wealth that differs qualitatively and quantitatively from the accumulation of capital, yet is connected with the latter as it needs a real source of value to draw on its returns. For this reason, the shift from productive to financial activities and the predominance of financial wealth in the last three decades has also led to profound changes in the field of productive valorisation.

According to this approach, the changes and transformations that gave rise to financialisation concern all aspects involved in economic and social reproduction. This is why the definition of financialisation can vary significantly depending on approach or focus. Further, although studies on financialisation are reporting and examining an unprecedented expansion of financial transactions against the background of a lengthy period of stagnation and crisis, the period post-1970s reflects how financialisation submitted the whole of social reproduction to financial market imperatives, leading not only to low levels of accumulation, but also to a complex interconnected web of changes, which sometimes drove the accumulation of real capital as well. In short, studies have showed that financialisation should not be understood as a reflection of continuing difficulties in production. The process is two-way. If anything, it is most likely that financialisation and the proliferation of financial securities are themselves the major causal factor in low levels of real accumulation.

Historical events triggering and driving financialisation go back to the

development of finance and the credit system during the boom years, the emergence of the Euromarkets and the collapse of the Bretton Woods Agreement, leading to changes in central bank management of the economy, and fiscal and monetary policy. The latter focused mainly on price stability, through money supply initially and then using interest rates. The generalised dollarisation of the credit system with the end of Bretton Woods also meant that the dollar became the common denominator for an exponential process of financialisation. This was accompanied by the strengthening of a hub for speculation and profitable fields of financial investments, deregulation of the financial sector, significant growth in cross-border flows and the integration of domestic financial markets, which resulted in a voluntary but also inevitable coordination with the dollar by the relevant central banks around the world.

This became clearer with the process of monetary policy alignment that started in the 1980s, especially when the financial systems of domestic economies became internationalised, and was mainly based on the monetarist prescriptions of the time. Although the monetarist experiment was disastrous, what followed next in terms of monetary policy not only continued to be based on a kind of monetary alignment around the world money, but still very much favoured and privileged financial interests under the guise of economic stability. The IT regime, for example, assures financial markets that any inflationary risk to the real returns on their asset holdings will be minimised. Further, it homogenises the criteria by which the properties of domestic currencies can be assessed across the globe.

The kind of monetary and fiscal policy that emerged after the 1970s put governments in a position in which they had to reconcile national macroeconomic objectives with international and domestic financial market pressures. Since then, there has been a shift from the state managing aggregate demand via fiscal policy, broadly criticised as poorly theorised and highly politicised, towards a scientific monetary policy, which also meant a shift from traditional practices of public-debt governance in favour of a market-oriented approach that started in the end of the 1980s under the umbrella of public debt management.

However, this is only a partial view of the changes. For this thesis, since the 1970s both monetary and fiscal policies have been used to different ends than those of the Keynesian era. Further, this does not mean constraints/restriction on government policy, as it is usually argued. Essentially, with financialisation the role of the state in regulating monetary and financial systems utilises the state itself as a major agent in the

provision of financial instruments through its own indebtedness. Government bonds in this context perform a more active role, closely associated with monetary policy. This confirms the discussion in Chapters 2 and 3, i.e., government bonds assume an even broader role for achieving a sound economy that is not associated with financing government deficit expenditure.

Although the debt burden is very much linked to fiscal policy and the withdrawal of the state is advocated, in reality, state withdrawal from economic life since the 1970s has meant that its role in financial life grew bigger in a very specific way: public debt become the cornerstone of modern financial systems. Instead of a passive debt issuer role, the state has used and became involved with a myriad of new financial instruments and financial activity in order to run its own apparatus and manage state affairs and the economy under financialisation – financialisation of the state. In this context, government bonds issuance is used to support the development and liquidity of a domestic fixed-income market, going beyond the arithmetic of budget deficits.

Examples of such a change are found, for example, in the increasing use of OMOs by the FED and other central banks in the 1960s; the use of government bonds to sterilise fiscal resources to back up the movements in the money and foreign exchange markets in the 1970s and 1980s, i.e., the use of government bonds to sustain the securitisation of the operation in the financial market; the use of repos by central banks as a monetary policy instrument and as a source of information on market expectations going back to the 1980s; the connection of financial stability with liquid government bond markets and free (deregulated) repo markets from the 1990s onwards; the use of market-based practices and technologies of financial innovation (for example, derivatives) to comply with the public debt management goals within specific monetary regimes and/or economic agreements; the use of sterilisation practices to either comply with IT requirements and/or guarantee international competitiveness; and the accumulation of foreign reserves as a policy of self-insurance against financial crisis.

Although these modalities need to be considered together with empirical studies on the new and different techniques of claiming wealth and their particular spatial and institutional structures of financial and industrial activity, they show both the use of financialised practices and incentives not only in limiting but also enabling governments to exercise statecraft through market-based channels, and the rise of government bonds as the *subject* of the financialisation process. Unfortunately, the

debate over the restructuring of nation-states through financialisation has been limited to whether or not they lost power to markets, and whether or not constraints on monetary and fiscal policies can be overcome. However, from the perspective above, the state not only passively suffers the impact of financialisation and manages its effects, but is transformed in order to underpin and pave the way for financialisation through its own indebtedness, which makes government bonds the subject of financialisation.

Chapter 5 – Increase and dynamics of the public debt in Brazil after 1994

5.1. Introduction

Until now this thesis has discussed the weaknesses in various public debt theories' examinations of the reality that emerged after the 1970s. The process of financialisation showcased the active and essential role that government bonds, as titles of fictitious capital, play in financial markets. This then raises two main theoretical points: the active role of public debt, unrelated to and independent of any public deficit, and the transformation of the state and its economic policies (not to be confused with the submission of the state to financial markets). This thesis uses these insights, in the current chapter and in the two that follow, to examine the Brazilian public debt from 1994 to 2014. This initial chapter exposes the changes to the public sector debt since 1994 in Brazil and revisits the literature examining public debt in the same period.

The consolidation of the Brazilian government bond market is relatively new when compared to developed economies such as the UK and the US, having started in the mid-1960s.[178] Therefore, public domestic indebtedness as understood today is the result of a government bond market development that happened in conjunction with several economics events such as inflationary problems of the 1960s-1980s, deterioration in public accounts in the 1980s, financial and commercial liberalisation that began in the 1990s and the stabilisation plan in 1994. The analysis in this chapter focuses only on the two last aspects, as they initiated a process of domestic indebtedness that is closely associated with the control and management of financial markets. In broad terms, the object examined is the net public sector debt (NPSD), but, specifically, the focus is on the Federal Domestic Marketable Debt (FDMDi), i.e., the debt circulating in the domestic market in Real-denominated bonds[179] (henceforth, domestic public debt or DPD).[180]

[178] In 1964, the military government of Castelo Branco, determined to create sustainable economic growth, posited an economic plan that involved, among other things, the reformulation of the national financial system and the creation of an efficient bonds market. This episode represents a turning point in the history of Brazilian domestic public indebtedness (Cruz, 1984).

[179] In 1965, the FDMDi represented only 0.5 percent of GDP. In the second half of the 1990s, it increased in real terms at an average of 24.8 percent a year (Pedras, 2010, p. 55). In 2014, it reached 51.5 percent of GDP (Secretaria do Tesouro Nacional, 2016a).

[180] See annex at the end of this thesis for an explanation of the structure of the Brazilian public debt.

The chapter argues that the reforms of the 1990s relating to trade and the financial opening of the economy resulted from two forces: the exhaustion of the import substitution industrialisation (ISI) and the Washington Consensus (WC). At public sector level these reforms can be understood as the implementation of a fiscal consensus based on a government deficit control approach. This consensus also reveals the dominance of monetary policy and the marginal role for fiscal policy, as discussed in Chapter 2. The developmentalist policies from the mid-2000s onwards and the government anti-cyclical intervention during the 2007-2008 crisis did not reflect a change in this consensus.

Still, somewhat unexpectedly, and despite achieving primary surpluses from 1998 to 2013, the government deficit control approach did not result in control of the debt to GDP ratio (D/Y). Additionally, since the mid-1990s the Brazilian economy has experienced increasing public sector financial fragility. Thus, since the Real plan, the increase in and dynamics of the NPSD and, more recently, the increase in the gross general government debt (GGGD)[181] have caused a stir in both the mainstream media and the academic world who have begun to scrutinise the causes of the growth in the public debt, its sustainability, and the financial fragility of the public sector.

The examinations of Brazil's public sector debt in this context can broadly be divided into mainstream and heterodox perspectives. The former focus on primary expenditure and the need to increase primary surpluses through higher tax revenues and/or reduced expenditures. The latter focus on the financial cost of the NPSD, more specifically, the financial cost of monetary policy within the context of the commercial and financial opening that emerged in the 1990s. In this sense, the study of Brazil's public debt involves a complex debate around financial costs of the debt versus primary expenditures, fiscal versus monetary policy, and disputes over the cause-consequence relationship between the public sector debt and interest rates.

Although heterodox scholars are right to argue that the increase of the NPSD in Brazil since 1994 is related to the costs of monetary policy, their approach may be challenged on two main grounds. Firstly, the problem is not only related to high interest rates, and monetary and fiscal policy constraints. A closer look at the channels through which the NPSD increases shows an increasing use of and reliance on techniques of intervention by the state in the domestic financial market, which can be summarised in sterilisation/repos operations, foreign reserves/sterilisation operations, and hedge

[181] The CGGD is not directly examined in this thesis. See annex at the end of the thesis.

mechanisms (indexed-dollar bonds and foreign exchange swaps (FX swaps)). Secondly, and linked to the first, these operations have a cost for the public sector because their core relies on trade and new issuance of government bonds, which are both often driven by non-fiscal factors. This suggests the use of government bonds in a different fashion to that envisaged by heterodox scholars whose influences come from neo-structuralism and dependency theory.

Following this introduction, this chapter is divided into four sections. The first explains and discusses the emergence of a new consensus for fiscal policy in the 1990s. The second examines the mainstream and the heterodox analyses of the causes of the increase in the NPSD since 1994. The third points out problems with the heterodox approaches and explains the shortcomings of their analyses explaining the dynamics of the public debt in Brazil. The last section concludes.

5.2. A new consensus for fiscal policy

In the years following the 1994 implementation of the Real plan, Brazil witnessed a series of reforms aimed at controlling public sector spending. These reforms followed and intensified a path started at the beginning of the 1990s which involved fiscal adjustments based on institutional changes in the state, following an international tendency. In this period, the Brazilian economy underwent various structural changes planned to rescue Brazil from what is often defined as the lost decade, the 1980s, and can be summarised as involving the exhaustion of the developmentalist model centred around the ISI (Bresser-Pereira, 1996; Fiori, 1992; Saad Filho & Morais, 2002, 2004, 2012).

The main change was the replacement of the ISI model by a new system of accumulation that was essentially built on the micro-integration of productive and financial capital in the transnational circuit of capital. The core of these policies was based on obtaining real and financial resources abroad (Saad-Filho & Morais, 2002, pp. 3–4). Despite differences among the scholars, these policies can be broadly understood as a strategy of growth through foreign saving as argued by Bresser-Pereira and Nakano (2002) and Bresser-Pereira (2003).

These structural changes were embedded in (and part of) a broader set of economic polices associated with the WC[182] and the assumption that the predominance of the financial sector over industrial interests was the only way to achieve economic

[182] See Chapter 6 for a discussion on the main tenets of the WC.

growth, as explained by Bresser-Pereira (2002, 2003b) and Saad-Filho and Morais (2002). Hence, among the prerequisites of this project was the development of the domestic financial markets, a view stemming from the assumption that financial development is necessary to generate growth, initially elaborated in McKinnon (1973) and Shaw's (1973) arguments against financial repression in developing countries (see Chapter 2). Although originally financial repression was related to any constraint that limited the efficient functioning of the domestic financial markets, the concept was gradually extended to include legal restrictions on international financial capital (Painceira, 2009, p. 6). These arguments were quickly incorporated into the WC, and financial liberalisation policies together with the idea of withdrawal of the state, became common in the structural adjustment reform packages adopted by Brazil at the beginning of the 1990s.[183]

In more specific terms, the reform of the state meant the adoption of a government deficit control approach that has its theoretical foundations in the Ricardian Equivalence (RE), as initially proposed by Barro (1974), combined with the budget equilibrium consensus resulting from the monetarist approach to the causes of inflation (Friedman, 1968), and the New Classical Macroeconomics models based on both rational expectation (Lucas & Sargent, 1978; Muth, 1961) and the life cycle hypothesis (Modigliani & Brumberg, 1954) (see Chapter 2).

Essentially, the government deficit control approach argues against public deficit and assumes that financing the deficit through public debt is a factor of allocative inefficiency that can reduce the growth capacity of the economy. There is also the assumption that rational agents anticipate future taxes resulting from the current public deficit and public debt in the form of savings. Therefore, government spending has no multiplier effects, and is then equivalent to the macroeconomic effect of a fiscal policy of balanced budget (Bevilaqua & Garcia, 2000; Giambiagi & Além, 2001; Giavazzi & Missale, 2004; Missale, Giavazzi, & Benigno, 2002; Pastore & Pinotti, 2002; Velloso, 2004). These are the influences behind Brazil's balanced fiscal budget policy of the 1990s, which aimed to eliminate public deficit and stabilise the D/Y ratio (Corrêa & Biage, 2009; Hermann, 2002).

[183] The period from 1990 to 1994 is not directly examined in this thesis. For more details on the changes in the Brazilian economy in the beginning of the 1990s see Belluzzo and Almeida (2002), Bresser-Pereira (1996, 2003a), Cardoso de Mello (1997), Mollo and Saad-Filho (2006), Morais, Filho and Coelho (1999), Paulani (2008), Saad-Filho (2003a), Saad-Filho and Maldonado (1998), Saad-Filho and Mollo (2002), Saad-Filho and Morais (2002)

From this perspective, fiscal policy distanced itself from the traditional objectives of the Keynesian era, which in Brazil differ from those of developed countries and should be understood within a developmentalist context with a strong state intervening in the,

> intersectoral and intertemporal allocation of resources (that is, the allocation of capital, labour and output, and the balance between investment and consumption) and economic management (through the elimination of strategic planning and the abolition of controls on most intermediate and consumer goods prices). (Mollo & Saad-Filho, 2006, p. 101)

These old objectives would allegedly be achieved through the control of the D/Y ratio, which would then signal to the market (potential investors and government bond holders) the solvency of the public sector and, as a consequence, the government would have room to drop the interest rate, encouraging economic growth.

The 1994 Real stabilisation plan was a reinforcement of several of these previously implemented measures. The plan was based on the theory that inflation was caused by public deficits, i.e. fiscal disequilibrium (Bacha, 1995, 1997), and its persistence was due to inertial inflation resulting from indexation, i.e., widespread indexation of wages and prices making inflation rigid downwards (Saad-Filho, Morais, & Coelho, 1999, p. 11).[184] Thus contractionary-only policies were not sufficient to reduce inflation. This led to three necessary stages to contain inflation (Ferrari & de Paula, 2003). Public deficits control was the first: the government had to achieve budget equilibrium[185] via a wide structural public sector reform that included a significant tax system reform, social security reforms, government expenditure cuts and a wide privatisation programme. In more immediate terms, taxes were increased and a provisional special fund, the Emergency Social Fund, was created in 1994 to reduce public spending. The success of both measures would allegedly eliminate the primary cause of inflation (Ferrari, 2002; Hermann, 2002; Saad-Filho & Maldonado, 1998; Saad-Filho et al., 1999).

[184] This diagnosis is a synthesis between the neo-structuralist (heterodox) argument that inertial inflation was the main component of Brazilian inflation, and the monetarist (orthodox) approach that considers the expansion of money as the main cause of inflation.

[185] At this time, the Brazilian government was only able to achieve fiscal equilibrium because of inflation and the resulting seignorage gains.

The Emergency Social Fund guaranteed that part of the state income from taxes was retained by the federal government to control its expenditure. In 1996, this provisory fund was extended, allowing the federal government to retain 20 percent of the tax collection. In 2000, the fund was renamed the Union Income Disassociation and was further extended in 2003, 2007 and, in 2011, until December 2015. The fund has always been nothing less than a provisional measure to allow the state to avoid executing compulsory clauses in the Brazilian constitution, for example, that 18 percent of the government income must be spent in education.

Thus, since 1994, the state has been able to avoid some of its required social expenditure on education, health and pensions, to allow it to achieve its target of reducing the public deficit. See Tables 5.1 and 5.2 below, especially the primary result.

Table 5.1: Public Sector Borrowing Requirements 1994 – 1998* (% of GDP)

Year	Primary	Nominal	Operational	Interest	
				Nominal	Real
1995	-0.36	7.16	n.d.	7.52	n.d.
1996	-0.05	5.38	3.38	5.44	3.44
1997	-0.90	3.94	2.24	4.84	3.14
1998	-0.01	6.80	7.36	6.81	7.38
Primary result excludes interest payments. Nominal result includes interest payments. Operational result excludes expenditures with monetary correction					
Nominal interest: interest rate before taking inflation into account. Real interest: is the nominal interest rate minus the inflation rate					
Note: negative signs indicate a surplus					
*From 1999 onward, state-owned companies are not included in the calculation. See Table 5.2 below.					

Sources: Banco Central do Brasil (2016b), IBGE (2016), author's calculations

Table 5.2: Public Sector Borrowing Requirements 1999 – 2014 (% of GDP)

Year	Primary	Nominal	Operational	Interest	
				Nominal	Real
1999	-2.86	5.17	1.01	8.03	3.87
2000	-3.18	3.30	0.21	6.48	3.39
2001	-3.32	3.25	-1.10	6.57	2.22
2002	-3.19	4.42	-3.04	7.61	0.15
2003	-3.24	5.18	-0.95	8.42	2.28
2004	-3.69	2.88	-1.89	6.56	1.80
2005	-3.74	3.54	0.05	7.28	3.79
2006	-3.15	3.57	1.68	6.72	4.83
2007	-3.24	2.74	0.19	5.98	3.42
2008	-3.33	1.99	-1.26	5.32	2.07
2009	-1.94	3.19	0.72	5.13	2.66
2010	-2.62	2.41	-0.87	5.03	1.75
2011	-2.94	2.47	-1.14	5.41	1.80
2012	-2.18	2.26	-0.96	4.44	1.22
2013	-1.71	2.96	-0.33	4.67	1.38
2014	0.56	5.95	2.43	5.39	1.86
Primary result excludes interest payments; Nominal result includes interest payments; Operational result excludes expenditures with monetary correction					
Nominal interest: interest rate before taking inflation into account; Real interest: is the nominal interest rate minus the inflation rate					
Note: negative signs indicate a surplus					

Sources: Banco Central do Brasil (2016b), IBGE (2016), author's calculations

The second stage of the plan aimed to de-index the economy using a parallel and temporary unit of account pegged to the dollar, while the third and final stage would create a new currency, the Real, whose stability would be guaranteed by the adoption of strict rules regarding money issuance. By then, the government's commitment would be to maintain an exchange rate ceiling of one-to-one parity with the dollar. Due to the fact that one of the anti-inflationary measures was to de-index the economy and then re-index it according to an exchange rate index with the dollar, the building up of international reserves was important to maintain the stability of this semi-fixed exchange rate[186] (de Paula & Alves, 1999).

Thus, the overall architecture of the Real stabilisation plan in 1994 relied on public sector spending control and the use of a fixed or semi-fixed rate of exchange in combination with more open trade policy as a price anchor (Silva & Andrade, 1996). In this sense, apart from fiscal adjustment, the plan included monetary reform and the use

[186] This is also known as managed crawling peg.

of the exchange rate as a nominal anchor. Further, it relied on high interest rates[187] and capital inflows to overvalue the Brazilian Real and fight inflation.[188]

Despite these changes, in 1998, only four years after the implementation of the Real, the country found itself in the midst of an exacerbated fiscal and exchange rate crisis.[189] The NPSD and its ratio to the GDP went through a sharp upward trend, particularly in the first years of the Real plan (Figure 5.1). The crisis led to a loan against conditionalities from the International Monetary Fund (IMF), which imposed an even more orthodox fiscal adjustment programme. This programme was based mostly on controlling the D/Y ratio with an intermediate objective of generating primary surpluses considering the evaluation of Y and financial expenditure of D (Hermann, 2002, p. 1).

The agreement with the IMF also resulted in the implementation of the Law of Fiscal Responsibility in 2000, which imposed stringent financial constraints upon all levels of public administration. The primary surplus obtained after these reforms was telling; it moved from 0.9 percent of GPD in 1997 to 2.86 percent in 1999 (Tables 5.1 and 5.2 above) despite sluggish growth during the same period (Figure 5.2).

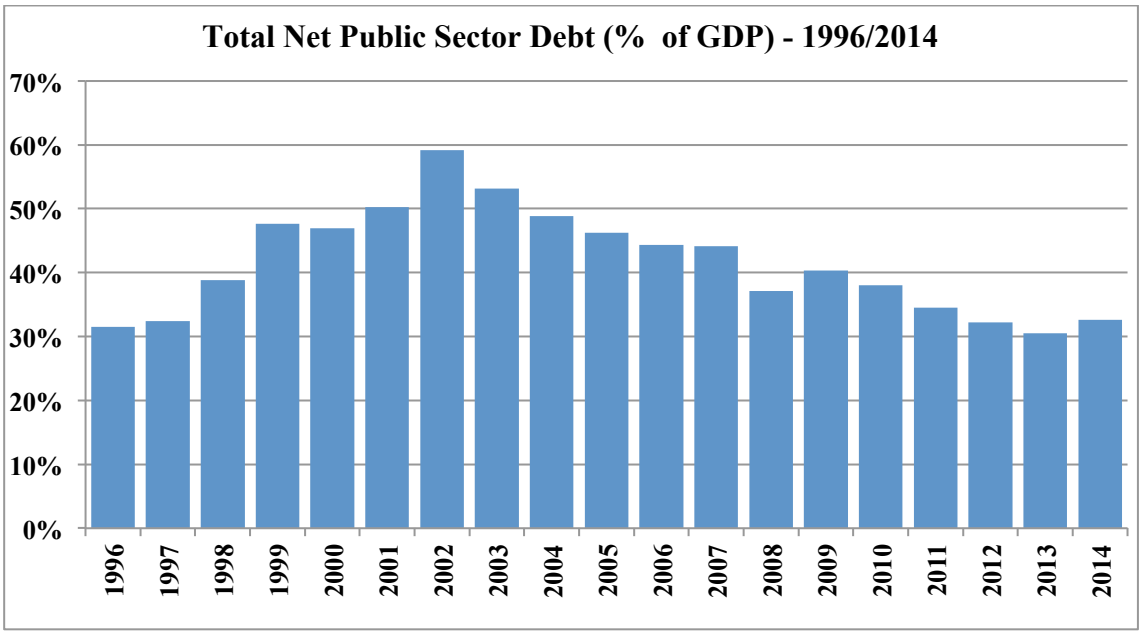

Figure 5.1: Total Net Public Sector Debt 1996 - 2014 (% of GDP)
Source: Banco Central do Brasil (2016b)

[187] After the plan implementation, monetary authorities also tried to avoid consumption bubbles and monetary expansion, so interest rates were also set high to control the money supply through the increasing of commercial banks' compulsory reserves (Ferrari, 2002; Ferrari & de Paula, 2003).
[188] For more details on the Real plan see Saad-Filho and Maldonado (1998), Paula and Alves (1999), Saad-Filho and Mollo (2002), Ferrai-Filho (2002), Paula and Ferrari-Filho (2003), Ferrari-Filho and Paula (2004).
[189] Chapter 6 discusses this in more detail.

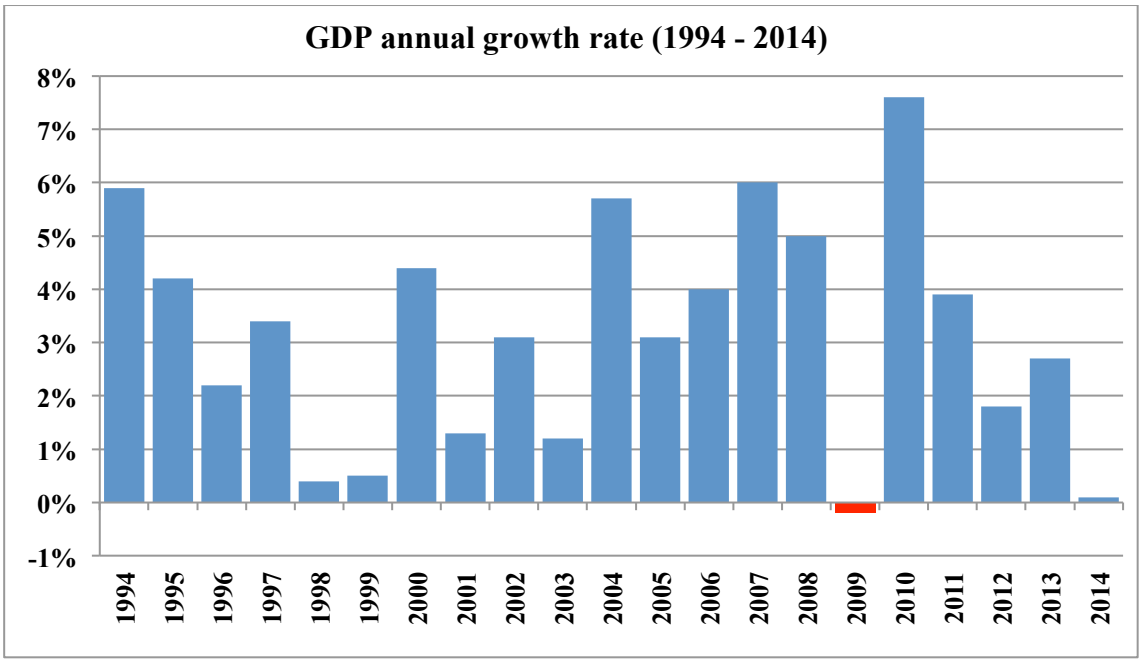

Figure 5.2: GDP annual growth rate 1994 – 2014
Source: IBGE (2016)

The crisis was also followed by the implementation of the inflation targeting (IT) regime in 1999, which meant the arrival of New Consensus in Macroeconomics (NCM) in Brazil.[190] The IT regime was based on a combination of IT, large fiscal surpluses and management of the Real, following the IMF prescriptions. The management of the Real was done via the introduction of a floating exchange rate regime that sought to increase export competitiveness and allow room for reducing the interest rate and the current deficit. If achieved, this would avoid the explosive growth of the public sector debt and allow economic growth recovery.

> Essentially, given the maximum fiscal surplus achievable, the interest rates were determined by the overlapping objectives of demand control (to achieve the government's inflation targets), exchange-rate stability, attraction of foreign capital to finance the balance of payments and maintaining the solvency of the state (generating sufficient demand for public securities). (Morais & Saad-Filho, 2005, p. 15).

Table 5.2 above shows that primary surpluses after 1999 carried on increasing, which contributed to the reduction of the nominal deficit, but the D/Y ratio increased

[190] See Chapter 2 for the definition and explanation of IT regime.

from 39 percent of GDP in December 1998 to 59 percent in December 2002 (Figure 5.1. above). The main component explaining this trend was the internal debt (Figure 5.3).[191] Internal debt is government debt, be it federal (including the Central Bank), state, municipal and state-owned companies, with creditors resident in the country itself. If the value of these expenses exceeds that of revenues, the Brazilian government has only three alternatives: to issue paper money, increase the tax burden or launch bonds. To avoid inflation, the federal government has opted for the last two solutions (Ipea, 2007 para 1).

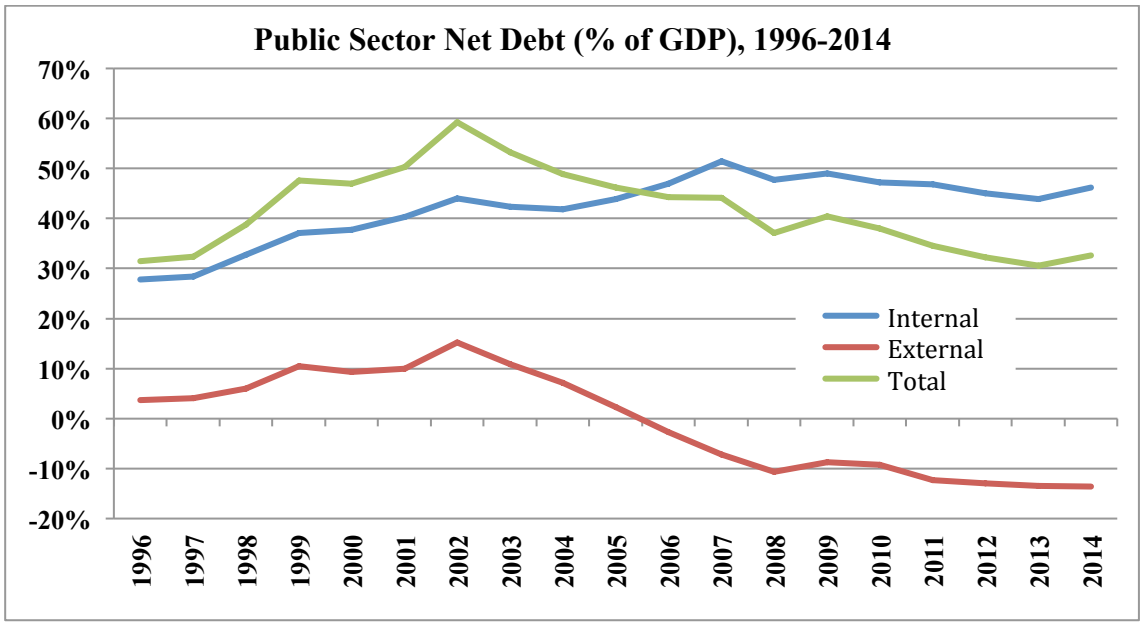

Figure 5.3: Total Net Public Sector Debt Decomposed 1996 - 2014 (% of GDP)
Source: Banco Central do Brasil (2016a)

The federal government and the Brazilian Central Bank (BCB) account for the largest increases in Brazil's internal debt. In addition, a closer look at the figures shows a sharp upwards tendency in the DPD, the federal debt circulating in the domestic market in Real-denominated bonds, since the mid-1990s (Figure 5.4) – when, as Tables 5.1 and 5.2 show, the government was achieving primary surpluses. As explored later in the chapter, this raises the question of whether the D/Y growth up to 2002 was mainly due to the high costs of the debt rollover and issuance of new bonds, rather than fiscal imbalances.

[191] The external debt has decreased since the beginning of the 1990s for three main reasons. Firstly, since 1991, the Brazilian government has substituted external debt with domestic debt. Secondly, the country has reduced external debt through accumulation of foreign reserves. Thirdly, Brazil used to borrow directly from IFIs or foreign banks; however, since the mid-1990s, it has been able to fund itself through issuing public bonds in the domestic financial market (Silva, Oliveira de Carvalho, & Ladeira de Medeiros, 2010, pp. 20–21, pp. 66–67). See annex at the end of this thesis.

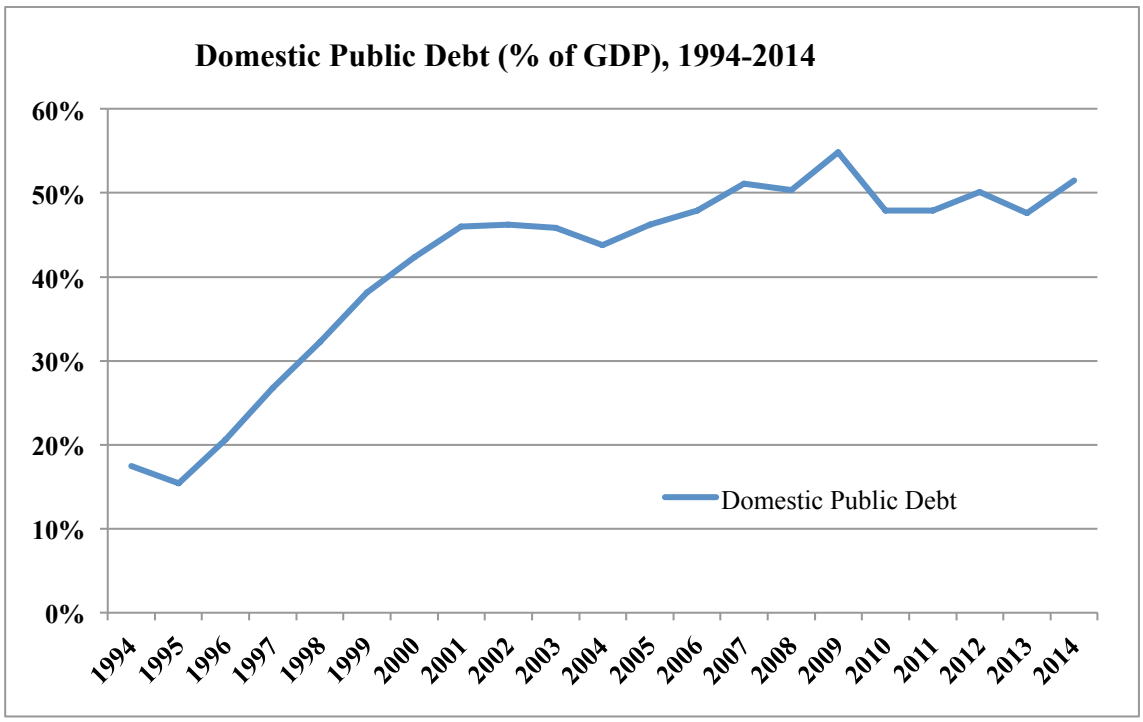

Figure 5.4: Domestic Public Debt 1994 - 2014 (% of the GDP)
Source: Banco Central do Brasil (2016a)

The increasing D/Y ratio in the first years after the Real plan is also unexpected when looking at the variation in government revenue, and current and financial expenditure from one year to the next (Table 5.3). Financial expenditure includes debt service payment, but also amortisations, cost of FX swaps and patrimonial adjustments due to, for example, exchange rate devaluation. For almost the entire period, government revenue was higher than its current costs, excluding financial expenditure. In 1996/1997, for example, the increase in public sector financial expenditure was 32 percent against an increase in current expenditure of 7 percent.

Table 5.3: Expenditure and revenue variation rate versus year before (%)* (1996-2012)**

Year	Revenue	Expenditures	Financial Expenditure
1996	93	60	17
1997	8	7	32
1998	-8	5	19
1999	6	8	41
2000	17	14	-8
2001	12	15	34
2002	16	15	16
2003	11	12	18
2004	16	14	12
2005	15	16	20
2006	12	19	59[192]
2007	14	7	-6
2008	18	13	18
2009	5	10	10
2010	16	12	-1
2011	16	11	8
2012	10	9	4
*Nominal values			
**Following dataset model constructed by Terra (2011)			

Source: author's calculations based on Secretaria do Tesouro Nacional (2016a)

Considering the period from 1995 to 1999 in particular, authors such as Pinheiro, Giambiagi and Moreira (2001), and Abreu and Werneck (2005), looking at non-financial expenditure, argue that it was necessary to increase public revenues to afford to have a public sector which had lost its revenue from inflation (see footnote 185) and failed to organise its expenditure under this new reality. Despite strong government deficit control in that period, Pinheiro et al. (2001) specifically blame expansionary fiscal policy and public management failures for the public sector debt imbalances (p. 16). However, Table 5.3 suggests a different story. The non-financial expenditure and fiscal policy should not be held responsible for the fiscal adjustment.

Further, it is necessary to look beyond interest rates to understand table 5.3. Despite the decrease in financial expenditure in 1999/2000 due to the drop in the SELIC rate from 45 percent p.a. at the beginning of March, 1999 to 19 percent a year later, at the beginning of March, 2000 (Figure 5.5), in 2000/2001 public sector financial expenditure increased by 34 percent and current expenditure by 14 percent. This high

[192] The year 2006 is particular in this context as there were a few processes of amortisation regarding the Paris Club and Brady bonds, which contributed to the increase in government financial expenditures. See Banco Central do Brasil (2006a, 2006b) and Secretaria do Tesouro Nacional (2006).

level of financial expenditure was still due interest rates that continued at a relatively high rate and due to rounds of increases in interest rates after the considerable drop to maintain both monetary stability and external savings, but not only. There was also an increase of the stock of the NPSD due to adjustments after the 1999 exchange rate devaluation, and financial payments on the exchange rate indexed government bonds (Banco Central do Brasil, 2009, p. 8, 2016c).

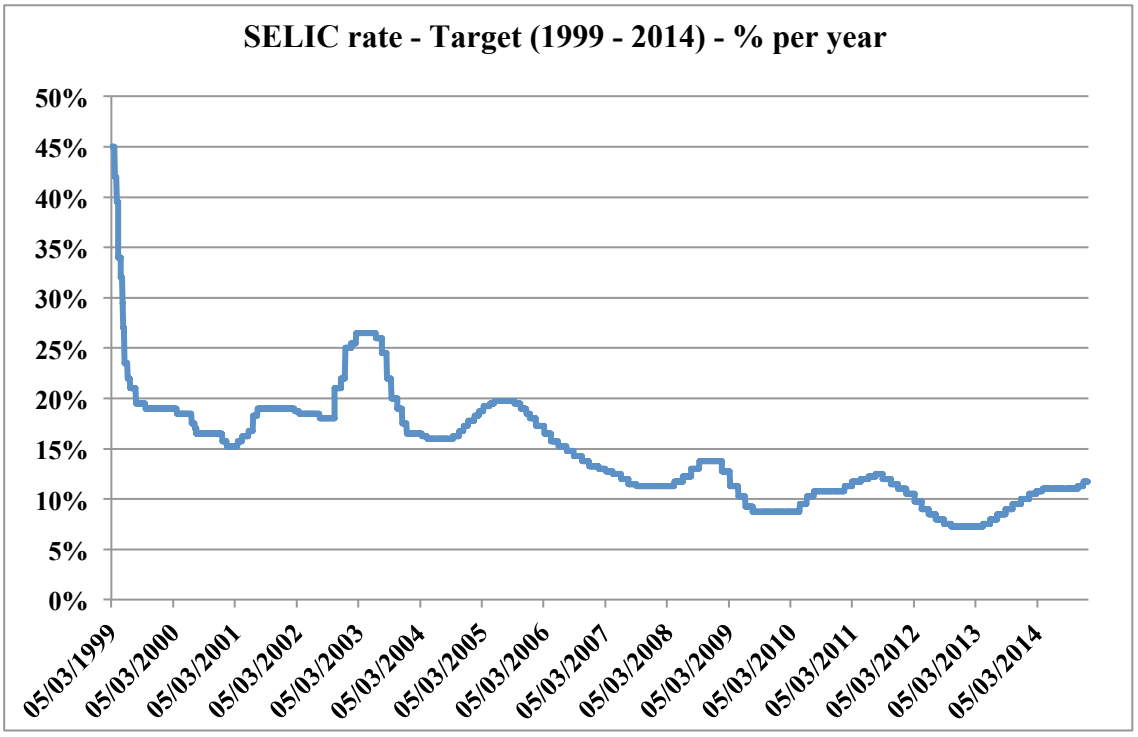

Figure 5.5: SELIC rate/Target 1999 - 2014 (% per year)
Source: Banco Central do Brasil (2016a)

The administration that started in 2003 followed contractionary monetary and fiscal policies. Interest rates were increased and the government's fiscal surplus target rose from 3.75 percent of GDP (agreed with the IMF) to 4.25 percent in an attempt to contain the growth of the NPSD and facilitate a reduction in the interest rates that had resulted from yet another exchange rate crisis in 2002.[193] This target was achieved by the end of the year but only at the expense of expenditure cuts. The major part of the fiscal adjustment focused on public investment, which declined from 1.1 percent to 0.3 percent of GDP in 2003, and the minimum wage,[194] which had a real increase of only 0.7 percent (Barbosa & de Souza, 2010, p. 3).

[193] Chapter 6 discusses this in more detail.
[194] In Brazil there is a link between minimum wage indexation and pensions and other benefits. Increases in minimum wages means growth in pensions and benefit payments, which in turn is source of fiscal pressure (IMF, 2016a, p. 21). See also IMF (2015)

Apart from the high primary surpluses, during 2003 the government also implemented new policies to try and control the government deficit including: a wide-ranging reform of public sector pensions; a tax reform, based mainly on higher indirect taxes and rebates for financial transactions, which preserved the high taxation required to service the public sector debt;[195] and a further reduction of the fiscal autonomy of municipal and state governments following the Law of Fiscal Responsibility (Morais and Saad-Filho, 2005, pp. 18-19).[196] The tax reforms were crucial to increasing the tax contribution in the following years, and the public sector pension reforms was equally crucial to stabilise the civil servant pension deficit in relation to the GDP (Barbosa & de Souza, 2010, p. 5).[197]

Yet, the short scenario post-2003 was not significantly different. The D/Y ratio did start to reduce due to the increase in contributions resulting from the 2003 tax reform and a small GDP growth spurt in 2004 (Figures 5.1 and 5.2 above). However, 2004's slightly improved economic performance was mainly due to the agribusiness and export sectors (stimulated by the devaluation of the Real), although there was also a "mild recovery of the domestic market, fuelled by the export sector and the good performance of manufacturing" (Morais & Saad-Filho, 2005, p. 20).[198]

Thus, on one hand, overall, the cumulative devaluation of the Brazilian Real (Figure 5.6) between January 1999 and October 2002 helped to boost the country's trade performance in the following years. High trade surpluses, in turn, helped to reduce the country's external vulnerability. On the other hand, interest payments on the domestic debt reached extremely high levels. Figure 5.7 shows this clearly when comparing the public sector borrowing requirement (PSBR)[199] with the interest bill, in a context of very high primary surpluses (Table 5.2 above).

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[195] At the time, Brazilian taxes were equivalent to 36 percent of GDP, unusually high for a middle-income country (Morais and Saad-Filho, 2005, p. 19). By the end of the second govern Lula, 2006, the steady and continuously increase in the tax burden turned Brazil into a tax anomaly compared with countries with its level of income: almost two-fifths of national income were directed to the State (Almeida, 2010). See below for a discussion on the Brazilian tax conditions.

[196] See Barbosa and de Souza (2010), pp. 4-5, for a summary of tax reforms during 2003.

[197] Especially during the period of 2003-2005 when there was a reduction in government costs of wages and pensions of public servants, from 4.8 percent of GDP in 2002 to 4.3 percent in 2005. See Barbosa and de Souza (2010), p. 7.

[198] This expansion of exports brought much-needed relief to the balance of payments, but it must be emphasised that it occurred largely due to favourable market conditions for some of the country's main crops and the excellent performance of the agribusiness sector. Moreover, for Saad-Filho and Mollo (2006), the relatively slower growth of manufacturing output and processed exports raised "the spectre of the re-primarisation of the Brazilian economy, which would hardly be conducive to the creation of quality employment and the improvement of social welfare" (p. 109).

[199] The IMF's (1986) manual defines government borrowing as the PSBR. Broadly speaking, the PSBR in Brazil is the variation of the NPSD and aims to measure the financial implications of fiscal policy. Brazil

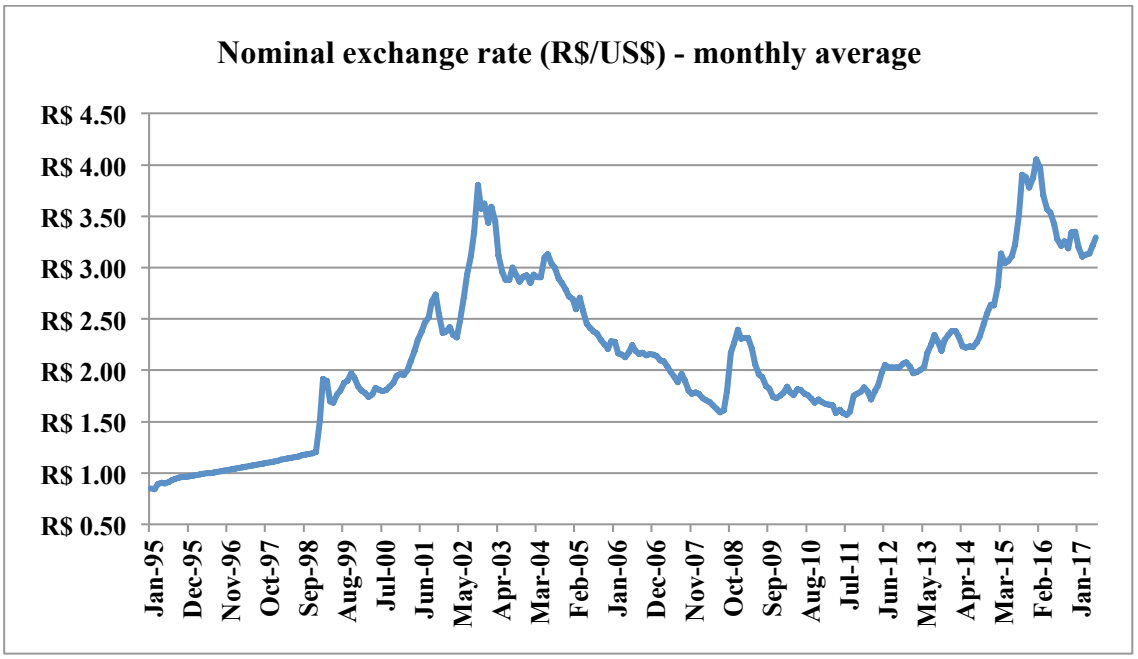

Figure 5.6: Nominal Exchange Rate (R$/US $) 1995 - 2017 (Monthly Average)
Source: Banco Central do Brasil (2016a)

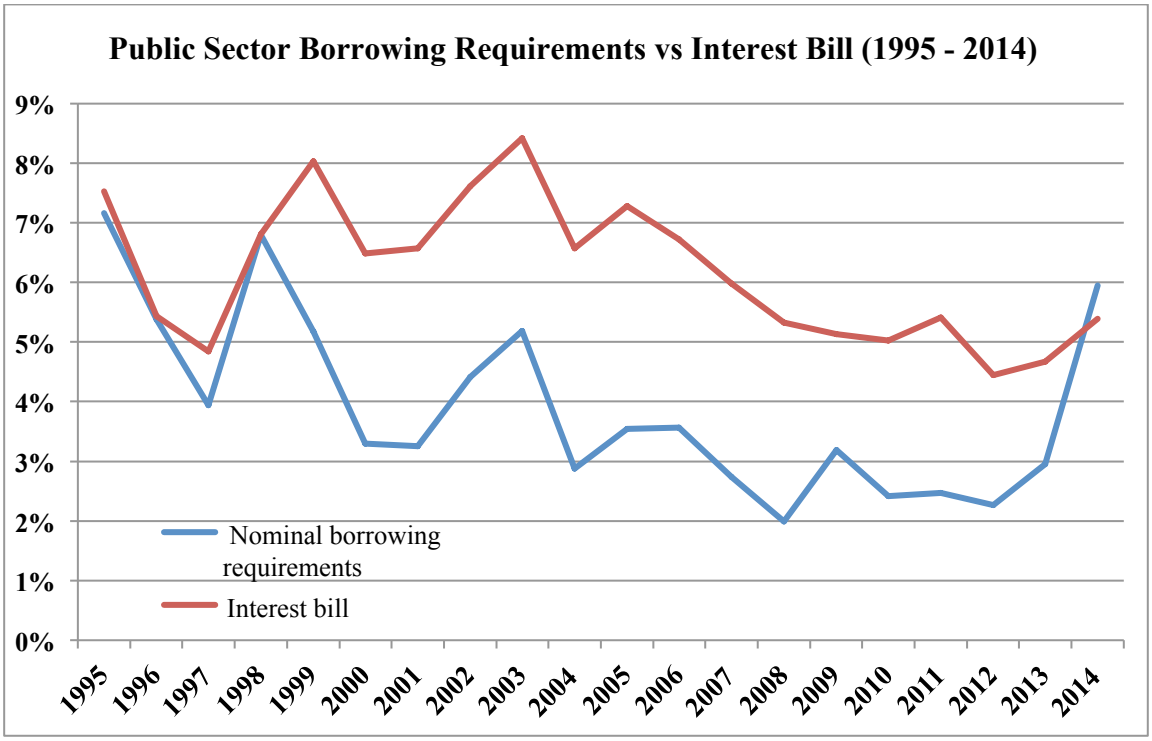

Figure 5.7: Public Sector Borrowing Requirements versus Interest Bill (1995 - 2014)
Source: Banco Central do Brasil (2016a) and Secretaria do Tesouro Nacional (2016a)

The high interest rates and pressures on the exchange rate (devaluation and valuation) continued to impact the public sector debt: in 2005/2006, financial expenditure stood at 59 percent and current expenditure at 19 percent (Table 5.3 above).

relies on the IMF model to calculate its PSBR, but several changes have been made since 1983 and it was only in 1996 that a methodology of calculation of the PSBR was agreed.

In this case, the high level of financial expenditure was not only due to rising interest rates, but also to the cost of swaps operations to control exchange rate pressures (see below). It was not until 2007 that there was a more significant decrease of the financial expenditure due to the drop in interest rates and exchange rate valuation.

By the time the welfare and developmentalist policies began in 2004/2006 under the centre-left Workers' Party government, Brazil had a consolidated perspective of government deficit control and a continuous flow of financial expenditure resulted from the exchange rate and monetary policy arrangement since the trade and financial opening in the 1990s and the stabilisation plan in 1994.[200] The developmentalist policies were based on state activism to trigger growth and, at the same time, reduce income distribution inequality. This included public sector spending with investment by state-owned and private enterprises, significant expansion of credit by state-owned financial institutions, and a series of tax rebates designed to stimulate private investments and develop production for the Brazilian mass consumption market. Further, the government also increased wages for civil servants in an attempt to attract more qualified professionals, expanded public servant vacancies, and substituted outsourced staff with permanent staff in civil servant positions (Barbosa & de Souza, 2010, pp. 10–11).

The developmentalist strategy certainly incurred costs for the government, and this may place doubts regarding the continuation of the government deficit control approach in Brazil. However, two points should be noted. Firstly, these policies were accompanied by primary surpluses and an increasing economic growth recovery (Table 5.1, 5.2 and Figure 5.2 above). Despite primary surpluses reducing from an average of 2.5 percent of GDP between 2003-05 to 2.3 percent between 2006-2008, they continued to be positive and high (Figure 5.8). Economic growth and good international liquidity led to an increase in tax revenues and financed a large part of the primary expenditures (see below). In this context, even though the primary surpluses decreased slightly, economic growth and increasing tax revenues were responsible for the downward trend on the debt to GDP ratio, which fell from 49 percent in 2004 to 46 percent in 2005 and to 44 percent in 2006 (Figure 5.8).

[200] Related is the problem with inflation control itself, but a direct critique of the Real plan and inflation targeting regime in Brazil is beyond the scope of this thesis. For a discussion of inflation in Brazil post-Real see Arida et al. (2005), Barbosa-Filho (2008), Ferrari (2002), Kregel (2000), Saad-Filho and Mollo (2002).

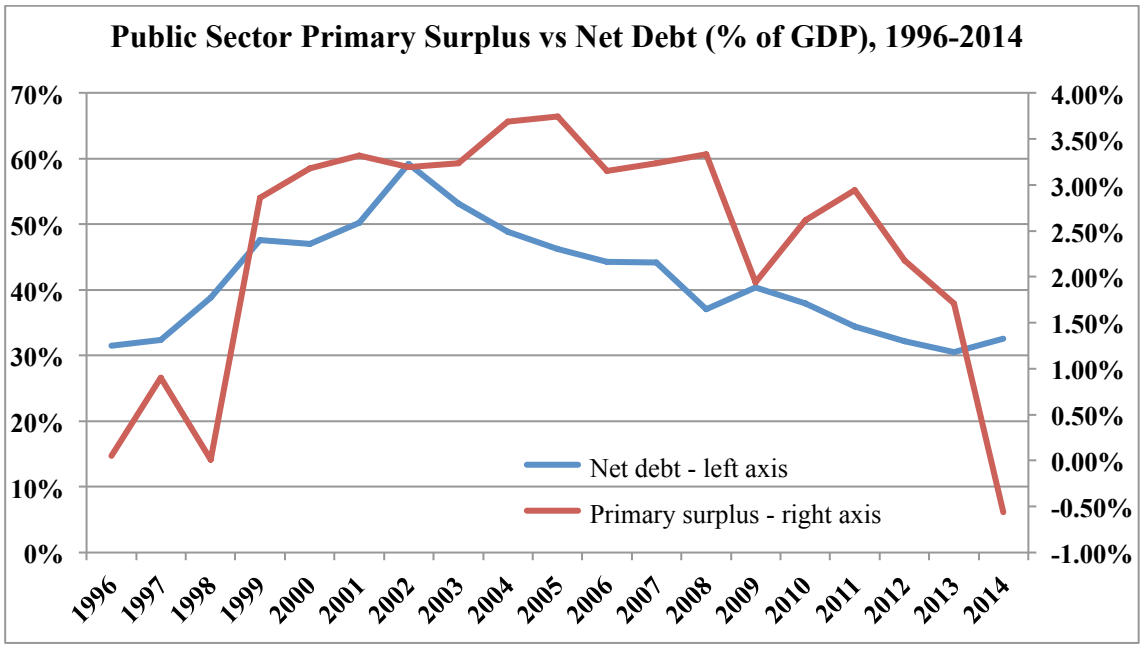

Figure 5.8: Public Sector Primary Surplus vs Net Public Sector Debt (1996 - 2014)
Source: Banco Central do Brasil (2016a); Secretaria do Tesouro Nacional (2016a)

Secondly, although the developmentalist policies meant that the government assumed a new posture related to public spending, it did not change the fiscal policy consensus of the 1990s. In other words, the developmentalist policy did not involve a fiscal policy targeted at public sector savings; rather it kept the contractionary fiscal policy posture based on primary surplus targets. The government implemented these developmentalist measures against a background influence of what is called *zero nominal deficit* (Delfim, 2005; Pires, 2007), which basically argues that "progressive surpluses" are required in order to achieve nominal deficits equal to zero in the future. The zero nominal deficit would then lead to a reduction in interest rates followed by a reduction in the D/Y ratio (Delfim, 2005, pp. 8–9) (see below).

The difference in the developmentalist context of the mid-2000s was that, legally, the government's primary surplus targets were redefined to exclude public sector investments by some of the country's largest state-owned enterprises, resulting in more resources available for investments by the public sector (Barbosa & de Souza, 2010, p. 25). The methodology employed to calculate the PSBR in Brazil formerly included assets and liabilities of state-owned enterprises, even if they did not need any fiscal resources to operate. In this sense, self-financing investments would generate a deficit in the PSBR. The main effect of this methodology for state-owned enterprises was a restriction on their volume of productive investment in strategic sectors such as oil and electricity. When the government legally changed the primary surplus calculation, state-owned enterprises, such as Petrobras (in 2008) and Eletrobras (in

2010) were removed from the PSBR (Morais & Saad-Filho, 2011, p. 519), which gave the government more space for its developmentalist measures.

In this light, on the one hand, the recovery of the role of the state in long-term planning since 2006 resulted in increasing primary expenditure (see more details below). On the other hand, tax revenue, economic growth and good international liquidity alleviating the pressures on the exchange rate helped to finance these expenditures without considerable changes in the monetary policy and its financial burden on the public sector or a broader change in government deficit control approach. Thus, fiscal policy continued to be subservient to the monetary stability goal while also affording, via primary surpluses, its costs. Furthermore, the improvement in the D/Y ratio was easily reversible, being conditional on economic growth delivering rising tax revenue.

Significant improvement in the public sector debt and a reduction of public sector financial fragility after 2004 were further prevented due to the cost of the 2007-8 crisis.[201] The government reacted by adopting an anticyclical monetary and fiscal policy in order to offset the contraction of loans by the domestic financial system and quickly spur economic activity to previous levels. One of its first initiatives was to expand liquidity, both in Reals and dollars. The BCB used its foreign reserves to sell dollars and offer short-term financing for exports;[202] these two measures were complemented by swaps operations through which the BCB sold dollars and purchased Reals to alleviate the pressures on the exchange rate devaluation.[203] Then, at the end of 2008, the BCB reduced banks' compulsory reserves and injected 3.3 percent of GDP into financial institutions.

The government also implemented several temporary tax rebates during 2009 in an attempt to stimulate consumption and sales, especially in the durable consumer and capital goods sector, trade supplies for construction, motorbikes, furniture and a few items within the food industry which cost it 0.3 percent of GDP that year. Government spending was also higher: public sector investment reached 2.6 percent of GDP in 2009, and a mass-housing programme costing 1.2 percent of GDP was introduced (Barbosa & de Souza, 2010, p. 27). Finally, there was a further expansion of the "social

[201] See Barbosa and de Souza (2010), pp. 22-29, for a detailed account of measures taken by the government to reverse the effects of the 2008 international financial crisis in Brazil.
[202] The BCB deployed US$72 billion to provide export credit (Saad-Filho & Morais, 2012, p. 795).
[203] The BCB intervention totaled US$14.5 billion in the spot market, US$24.4 billion in financing of exports, and US$33 billion in swaps operations (Barbosa & de Souza, 2010, p. 24).

programmes, which grew from 6.9 percent of GDP in 2002 to 8.6 per cent in 2008 and 9.3 per cent in 2009" (Barbosa & de Souza, 2010, p. 27).

Although the D/Y ratio did not present significant increases after 2007, these anticyclical measures had an impact on the NPSD. The nominal public deficit increased from 1.99 percent of GDP at the end of 2008 to 3.19 percent in November 2009 (Table 5.2 above). To accommodate the expansion in public expenditure caused by these measures, the government re-adjusted its primary surplus for 2009: Petrobras investments were removed from the calculation; the target of 3.3 percent of GDP was reduced to 2.5 percent before public investment, and from 2.8 percent to 1.6 percent after public investment. For 2010, the 3.3 percent of GDP target before public investment was kept, but the 2.8 percent target for after was reduced to 2.6 percent (Barbosa & de Souza, 2010, p. 27).

One very important observation here concerns the implicit interest rate of the NPSD in Brazil, which is often ignored (Figure 5.9). This rate is the difference between the interest paid on liabilities (the SELIC rate) and the interest received on assets (foreign reserve remuneration and the BNDES credit to the private sector). From 2006 onward the implicit interest rate became crucial to understanding the cost of the NPSD, as the foreign reserve accumulation policy officially adopted that year and the developmentalist policy using the BNDES caused NPSD interest rates to go up.

Without factoring this into analyses it is impossible to explain the moments when interest rates fall, but nominal deficits and the PSBR increase at a faster pace. This is roughly the scenario from 2009 to 2014, despite SELIC increases in 2010 and 2011. For example, in 2013 the SELIC rate hovered around 7.25-7.50 percent. However, the costs of debt service still reached 4.76 percent of GDP (Table 5.2 above), as the implicit rate was 16.9 percent. In this light, the issuance of government bonds to purchase assets of low profitability made the cost of the NPSD relatively insensitive to the SELIC rate after 2006.[204]

[204] The implicit interest rate in Brazil will be discussed in more detail in section 5.4.

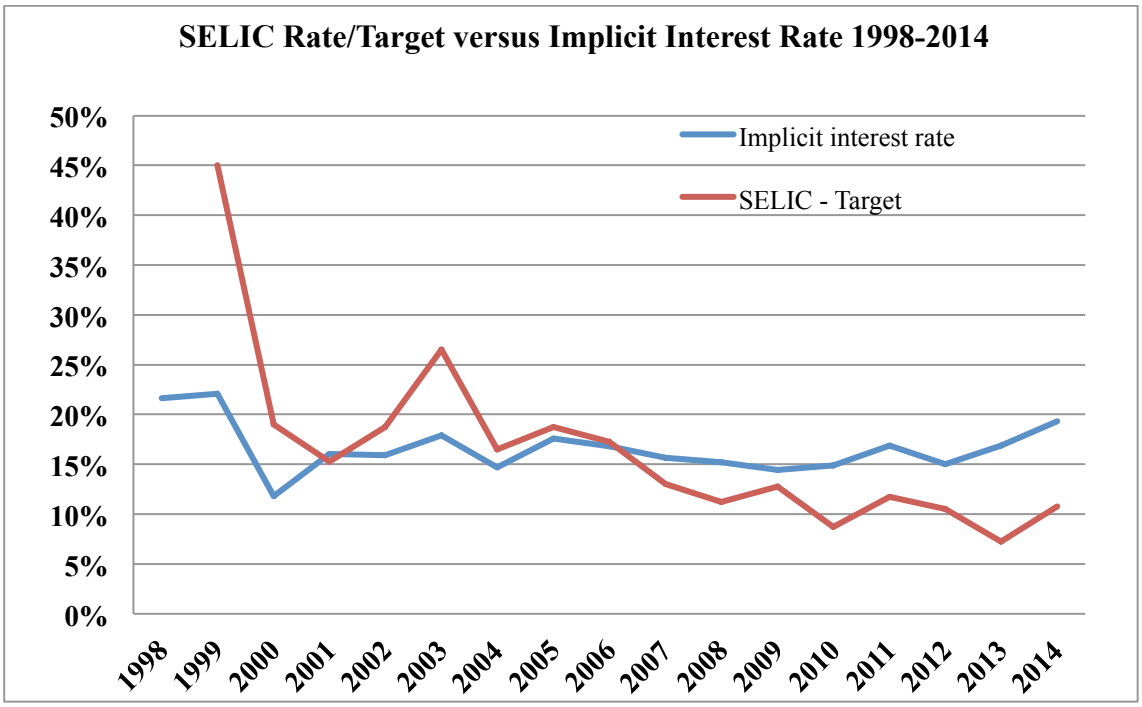

Figure 5.9: SELIC Rate/Target versus Implicit Interest Rate 1998 - 2014
Source: Banco Central do Brasil (2016a)

Despite the 7.6 percent economic growth in 2010 (Figure 5.2 above), the new administration starting that year showed a contractionary commitment (Prates & Cunha, 2012; Serrano & Summa, 2015).[205] By the end of April 2010, the government had increased the SELIC rate from 8.75 percent (where it had been since July 2009) to 9.50 percent and then to 10.25 percent in June. The cycle of interest rate increases continued until August 2011 when it reached 12.50 percent. A strong fiscal adjustment was the target when a high primary surplus had been set in 2010, which concretely resulted in a primary result of 2.94 percent (Table 5.2). Serrano and Summa (2015) argue that this fiscal adjustment was only possible due to, and was based on, an equally strong reduction in the growth rate of public spending,[206] which fell in real terms from 17.9 percent of GDP in 2010 to 7.8 percent in 2011 (p. 2).

In a context of global slowdown tendencies, the outcome of this shift in government policies was not positive, as the economic growth rate in Figure 5.2

[205] The reasoning behind the policy decision is unclear. One argument references the tensions between expansionary developmentalist policy and contractionary neoliberal policy, which co-existed from 2006-2010, and disputes between these forces within the government (Saad-Filho & Morais, 2012). Related to this and linked to the argument that the developmentalist polices have never challenged the idea of a neoliberal state, others argue that public investment should not play a key strategic role in generating growth and it was necessary to encourage the private sector to lead economic growth (Serrano & Summa, 2015).
[206] The drastic reduction in public investment to achieve primary surplus reflected a significant change in government strategy.

shows.[207] Primary surplus assumed a downward trajectory (Figure 5.8), becoming negative in 2014 for the first time since the mid-1990s (Figure 5.8, Tables 5.1 and 5.2). This was a consequence of economic slowdown, which considerably reduced the evolution of fiscal revenues, and also those from tax breaks the government had offered during 2012 and 2013 to various industries to lower prices, bolster consumption and boost investment and growth in a stagnant economy (Bresser-Pereira, Nassif, & Feijó, 2016; Rothacher, 2016).

The D/Y ratio increased as a result of the low primary surplus (Table 5.2 and Figure 5.8) in combination with other costs, such as those related to maintaining a large stock of foreign exchange reserves, interest payments on repos and FX swaps operation, financing the BNDES development bank, and subsidising loans for the private sector[208] (Serrano & Summa, 2015, pp. 22-23). Essentially, the arrangements in place since the mid-1990s continued to destabilise the Brazilian economy through the fiscal pressures resulting from high interest rates, overvaluation of the Real, external account imbalances, and the financial costs of IT with an open economy. The upward tendency of the NPSD plus lower primary surpluses "gave ammunition to supporters of 'sound finance', both inside and outside the government, generating a near consensus around the necessity for another contractionary fiscal 'adjustment' in 2015" (Serrano & Summa, 2015, p. 23).

In sum, since the 1990s, the Brazilian government has adopted a mode of fiscal adjustment and management based on the government deficit control approach. Despite different administrations since then, including a period of developmentalist policies, this mode of fiscal adjustment and management has not been challenged. Yet, since the Real plan, the increase in and dynamic of the NPSD have caused concern regarding the growth in and sustainability of the debt, and the financial fragility of the public sector. Particularly from the mid-2000s onward, the fragility of the public sector was transformed into a fragile fiscal stability and balanced budget that kept trying to manage the tensions in affording monetary and exchange rate policies, increasing foreign

[207] The explanation for the slowdown in the Brazilian economy after 2010 is an object of dispute among heterodox economists. Palma (2016), for example, argues that Brazil did not use the resources brought by high commodity prices to augment industrialisation and diversify its productive sphere, so growth was never sustainable. For Serrano and Summa (2015), the slowdown was a result of the sharp decline in domestic demand due to changes in the orientation of domestic macroeconomic policy, rather than changes in external conditions of trade and finance. Bresser-Pereira (2010, 2012) argues that there has been a stagnation in Brazil's exports of manufactured goods, not commodities, as a result of the overvaluation of the Real.

[208] The payment of subsidies to increase loan durations for the private sector increases the NSPD "because the basic short-term interest rate (SELIC) is much higher than the long-term interest rate charged by BNDES on its loans (TJLP)" (Serrano & Summa, 2015, p. 23).

reserve accumulation, public investment projects and income transfer programmes. When the last two were reduced and the economic growth rate decelerated after 2010, the macroeconomic imbalances resulting from both the government deficit approach and monetary arrangement were once again evident. The next two sections discuss the possible explanations for the difficulties in controlling the public debt in a context of continuous primary surpluses achievements and contractionary fiscal policies.

5.3. The dynamics of the net public sector debt

5.3.1. The mainstream approach

The common argument explaining the increase in the public sector debt since 1994 relies on changes in the most important concept of public sector debt: the NPSD. Approaches with this concept as their starting point argue that the increase in the PSBR is mainly explained by excessive primary spending on health, education, social assistance, national defence, culture and so forth (Garcia Bevilaqua & Garcia, 2000; de Barros, 2011; Giambiagi, 2006; Giambiagi & Além, 1996, 2001; Pastore & Pinotti, 2000; Pinheiro et al., 2001; Schwartsman, 2011a). This type of government spending does not include government spending with interest payments on public debt.

There are two important issues at stake in these analyses. The first is the D/Y ratio, i.e., the stock of the debt, whose stability is understood to be the main goal of public debt management. From this perspective, primary expenditure needs to be controlled together with rising tax revenues and primary surpluses. Further, financing sources need to be low cost and low yield volatility, which is only achieved via management of the debt profile as there is an implied trade-off between risk and the debt service cost[209] (Giavazzi & Missale, 2004).

The second is the interpretation that high levels of public debt explain high levels of domestic interest rates. For scholars such as Pastore and Pinotti (2000, 2002), Velloso (2004) and Vivian and Mendonça (2010), only a reduction in government spending will definitely result in a decrease in interest rates, not the inverse. The core of their argument goes back to the work of the New Classical Macroeconomists Sargent and Wallace (1981)[210] who presented two important arguments that influence the mainstream economics tradition in Brazil: i) the demand for government bonds constrains the government by affecting the interest rate that it must pay on bonds; and

[209] See Chapter 2.
[210] See Chapter 2.

ii) an economy that is not able to neutralise shocks and has a high D/Y ratio may generate a real interest rate, *r*, that is higher than rates of economic growth, *g*.

The argument that high public debt leads to high domestic interest rates is also strongly influenced by the debt management literature (Calvo & Guidotti, 1990; Giavazzi & Pagano, 1990),[211] which brings in the role of expectations of future policy. Basically, short-maturity debt increases the risk of default and results in investors demanding high interest rates in the government bonds market. Thus, debt managers prefer long- to short-maturity debt because they are concerned about the risk of refinancing at higher than expected interest rates. In contrast, when long-term rates are high relative to their expectations, debt managers issue short-maturity debt to minimise borrowing costs. The intervention in the debt profile and maturity should occur at the same time as the implementation of fiscal consolidation, which means coordinating fiscal and monetary policy (Favero & Giavazzi, 2002; Giavazzi & Pagano, 1990; Missale et al., 2002).

Works within this tradition led authors to explain the increase in the NPSD based on a "once and for all" type of adjustment that occurred from 1994 to 2003. They argued that the dynamics of and increase in the DPD during this period was due to non-repetitive factors that are unlikely to happen again: the municipalities and state debt restructuration (PROES), [212] the acknowledgement of previous debts, and the programme of strengthening the financial system (PROER).[213] In this light, it was strongly stated that the NPSD upward tendency would be unlikely to continue after 2002 due to continuing achievement of primary surpluses and the implementation of the Fiscal Responsibility Law (Pêgo & Pinheiro, 2004; Versiani, 2003).[214]

It is also argued that in the initial years after the Real plan, the primary surpluses' downward trend was not enough to control the D/Y ratio, which then contributed to the increasing public sector debt. Primary surpluses are, in these approaches, the variable that controls the debt. Therefore, it follows that the reduction in government primary spending and increase in revenues are equally central (Abreu & Werneck, 2005; Pinheiro et al., 2001). In this scenario, although the burden of interests payment is acknowledged, the issue is that high non-financial expenditures stop the

[211] See Chapter 2.
[212] Program for Reducing the Presence of the State Public Sector in the Banking Activity.
[213] Program for Restructuring and Strengthening of the National Financial System.
[214] Both programmes were government-sponsored and aimed to strengthen financial institutions, mainly through mergers, transfers of interest rate control and reduction of the public sector presence in banking activities. They followed the capitalisation standards and credit risk proposed by the Basel Accord (Versiani, 2003, p. 11).

achievement of a balanced budget, even in a context of primary surpluses, and therefore contribute to the increase in interest rates (Garcia Bevilaqua & Garcia, 2000; Guardia & Goldfajn, 2003; Mussi & Giambiagi, 1995).

When the IT regime was implemented in 1999, this literature argued that the interest rates were then adjusted according to the inflation target and, therefore, the exchange rate absorbed the external shocks' impacts. Further, there was an expectation that the BCB would have an active monetary policy and would be able to determine the interest rate. If the government is able to maintain high primary surpluses and balance external accounts, it is also able to improve the macroeconomic fundamentals. As a consequence, the country's external vulnerability decreases, and so does the risk resulting from the high public debt. All these factors allow the fall of domestic interest rates, as the market would not demand a high interest rate in a context of low country risk and low levels of public debt (Pastore & Pinotti, 2002; Velloso, 2004).

This literature does not directly discuss other possible reasons for high interest rates in Brazil. Additionally, despite acknowledging that the reduction in primary expenditure and increase in taxes and primary surpluses need to be accompanied by government efforts to change the debt indexation and maturity, discussions of the structural motives that lead to indexation of government bonds to the SELIC rate and short-term maturity are frequently absent.

In Pires (2005), for example, the indexation of the debt to the SELIC and exchange rates is simply understood as the result of government failures in controlling the exchange rate in a context of financial liberalisation. Bevilaqua and Garcia (2000) and de Mendonça (2004) simply argue and indicate that government bonds should be indexed to inflation indexes as this would reduce the costs of trying to coordinate macroeconomic policies, given the BCB's commitment to price stabilisation. The discussion is frequently one of what the government should be doing – followed by its inefficiency, rather than why the government cannot achieve the desired indexation.

The literature does acknowledge the difficulties of achieving long-term maturities. Barcinski (1999) and Pires (2005), for example, go back to Guidotti and Kumer (1991) to argue that there are two reasons for the concentration of short-term maturity of the debt: financial sector fragility and inflationary expectations. The puzzle for both is that, for them, these issues are no longer a problem for the Brazilian economy, but the short-term debt profile persists. The explanation is then found in i) lack of long-term government bonds supply by the BCB, in which the risk premium

would be higher and ii) lack of demand for long-term government bonds by private agents. Barcinski (1999) discusses the BCB's failures in trying to extend the debt maturity, and strongly associates these failures with the limitation brought by the risk premium demanded by private investors. Pires (2005) follows similar lines, but, with a post-Keynesian influence, argues that private investors' high liquidity preference is responsible for the short-term concentration of the public sector debt, making the debt rollover a potential source of instability.[215] Once more, the focus is on government failures.[216]

Overall, the tradition within mainstream economics understands that the increase in Brazil's public debt is due to excessive non-financial expenditure. For them, these expenditures, even in a context of primary surpluses, are responsible for the fiscal imbalances in the dynamics of Brazilian public indebtedness. Further, from this perspective, primary expenditures end up contributing to the increases in the interest rate, which causes a series of macroeconomic imbalances in the economy. In this context, works within this tradition focus on both i) forecasting control of the D/Y ratio, given certain primary surplus targets, austerity measures and tax increases; and ii) simulations based on alternative debt indexes and maturities, aiming at the stabilisation of the D/Y ratio.

5.3.2. The heterodox approach

The heterodox schools in Brazil present a strong case criticising the approaches discussed above. Despite different frameworks within these schools (structuralist, Keynesian, Marxist, etc.), there is a consensus that the main driver behind the growth of NPSD is related to financial factors and not primary expenditures (Alves, Ferrari, & de Paula, 2004; Bastos, 2015a; de M. Belluzzo & Carneiro, 2004; Carneiro, 2006; Carvalho & Ferrari, 2004; Carvalho, Diniz, Pedrosa, & Rossi, 2016; Corrêa & Biage, 2009; Delgado, 2015; Ferrari, 2002; Ferrari & de Paula, 2003; Hermann, 2002; Terra, da Silva, & Pires, 2012; Terra, Ferrari & Conceição, 2009).

The pillar sustaining this consensus is the fact that, excluding the first few years post-Real and 2014, Brazil achieved surpluses including its public sector primary result. This means that from 1998 to 2013 the public sector in Brazil spent less than its

[215] This argument is interwoven with Calvo and Guidotti's (1990) seminal work on debt maturity and indexation. By the end of 1999, the Brazilian government started orientating its strategy in extending the maturity of government bonds on the work of Calvo and Guidotti (1990) and Giavazzi and Pagano (1990). See Vivian and Mendonça (2010).
[216] See also Giavazzi and Missale (2004).

revenue. The primary surpluses during these years reflect the fact that Brazil incurred nominal deficits, i.e., deficits resulting from the inclusion of interest payments on the public debt into its spending (Tables 5.1 and 5.2 above).

Yet, in several years the debt to GDP ratio did not fall, despite the constant primary surpluses (Figure 5.1 above). These figures and the contrast between financial and current expenditure (Table 5.3 above) make clear that, although there was deterioration of the primary surpluses in some periods, which certainly had an impact on the government deficits, this was not the main cause of the increasing PSBR. Heterodox authors frequently argue that the problem of public debt in Brazil is not because primary surpluses are not enough, but rather because of the high interest service.

Hermann (2002), for example, categorically states that the argument of necessary primary surpluses is biased and wrong, especially considering that in some years the government exceeded the primary surplus target. For her, a simple ex-post arithmetic analysis comparing primary surplus against nominal interest expenditure is enough to provide an irrefutable argument showing that the financial costs of the public debt increased the stock of the public debt (p. 2).

The explanation behind this consensus, however, differs slightly among heterodox scholars. Unquestionably, the contrast with the mainstream approach occurs from the perspective of both an inverse relationship between interest rates and public debt, and a call for reviewing the role of fiscal policy when it comes to economic development. However, the perspective that fiscal consolidation via control of primary spending without a policy targeting the reduction of interest rates is inefficacious raises questions about the dynamics of the debt and its drivers. This is a much more complex matter, as it involves i) different explanations for the macroeconomic policies that have emerged since the 1990s; ii) myriad explanations as to why interest rates are high in Brazil; and iii) a discussion of constraints on fiscal policy.

5.3.2.1. The macroeconomics of the Brazilian economy and high interest rates

The first two points above can be discussed together. High debt service obligations due to high interest rates are the most discussed channel through which the public debt increases. Essentially, the indexation of a very large portion of government bonds to the SELIC interest rate implied that a small, and even temporary, increase in

interest rates by the BCB leads to a substantial increase in government financial expenditures which affects the PSBR under its nominal and operational concepts (Tables 5.1 and 5.2 above). The maintenance of policy rates at a relatively high level has prevented a further reduction in the cost of servicing the public debt, which then requires higher primary surpluses to achieve public debt sustainability. Thus the discussion of public debt in Brazil is one that comes together with discussion of why these rates are high.

In this light, the growth of the public sector debt is associated with the exchange rate trap approach. The exchange rate trap is due to the fact that the appreciation of the Brazilian Real against the dollar, within a context of commercial opening, results in recurrent and increasing current account deficits. This, in turn, has been financed by inflows of international capital – predominantly with a volatile feature – attracted by a high domestic interest rate. Thus, there has been public debt growth and therefore public sector imbalances, as, despite fiscal adjustments and tax increases, the continually high interest rate and exchange rate fluctuations (Figure 5.6 above) increase the financial cost of the debt, which increased the debt itself (Alves et al., 2004; Carvalho & Ferrari, 2004; Ferrari, 2002; Ferrari & de Paula, 2003; Terra et al., 2012).

Along similar lines, Corrêa and Biage (2009) argue that macroeconomic policies in Brazil since 1994 have interrelated financial opening, volatile capital, high interest rates and inflation targeting in such a way as to create constant impacts on interest and exchange rates, thus causing increases in the public sector debt. The deterioration of the balance of payments and the increase in inflows of volatile capital mean that there is a constant need to attract capital, which in turn subordinates the dynamics of the domestic interest rate to this need. A similar argument is found in Belluzzo and Carneiro (2004) who argue that the high estimated Brazilian risk that positively affects the interest rate is due to the volatility of international capital flows (p. 219). For them, the Brazilian economy is subordinated to the dynamics of financial opening and speculative capital movements that constantly increase interest rates – as a result of which, a policy of capital control is necessary.

In broader terms, for the heterodox literature, the dynamics of the public debt have a close relationship with the articulation between interest rates and exchange rate policy adopted after the Real plan. The integration of Brazil, and several other emerging economies, into the global economy in the 1990s was based on a type of capital mobility and financial opening that connected interest rates and external accounts in a

much more perverse form than witnessed in the past. As domestic interest rates became entangled with the need for capital inflows, the country began to present a strong external vulnerability, also related to a domestic macroeconomic policy that prioritises inflation control. It is this articulation that affects interest and exchange rates, which then cause the increase in public debt.

Contrary to the argument that under the IT regime the "only objective of the interest rate is to keep inflation at this pre-established target" (Barboza, 2015, p. 136), the NCM neither eliminated the need for a high interest rate in Brazil nor changed the dynamics above (Belluzzo & Carneiro, 2004; Carneiro, 2006; Corrêa & Biage, 2009). As the IT mainly blamed excess demand for any increase in the rate of inflation, inflation stabilisation always required higher interest rates and fiscal surpluses. Further, the IT regime demands higher interest rates whenever inflation exceeds the desired range, regardless of the consequences for domestic financial stability and the balance of payments. These high rates are also seen as necessary to stabilise the flows of foreign capital under a floating exchange rate regime. Thus, after 1999, no greater flexibility of monetary policy was witnessed, as the monetary regime efficiency remained tied to movement in the exchange rate.

Ferrari (2002), Mollo and Saad-Filho (2006) and Saad-Filho and Morais (2002) further highlight that these rates remained high or even increased due to two additional reasons: first, as a reaction to fluctuations in the international liquidity and financial crises; second, the inflow of capital had to be sterilised to control the expansion of the monetary base. These sterilisation policies "forced the government to maintain the high interest rate policy, in order to stabilise the demand for public securities" (Saad-Filho & Mollo, 2006, p.106).

The relevance of investors' demands in determining interest rate levels in Brazil is also highlighted by Oreiro and de Paula (2011) who argue that the market demands the Treasury use high rates for debt rollover due to an already fragile financial sector. Hermann (2002) argues along similar lines, showing that difficulties in financing the government foment the estimation of risk of public debt default[217] by investors and bondholders, which in turn increases the cost of debt rollover and issuance of new bonds.

The power that bondholders and investors have had over public finance in Brazil since the 1990s is empirically confirmed by the work of Hardie (2012) who concludes

[217] The risk of default in Brazil is contested by the fact that its debts are mostly Real-dominated. See the work of Rezende (2009) who use the Modern Monetary Theory to make this case for Brazil.

that investors' financial activities, including speculative activities and their ability to trade risk, restrict the Brazilian government's borrowing capacity, which then reinforces this cycle of high interest rates. Further, scholars such as Carvalho et al. (2016), Ferrari (2002) and Hermann (2002) note that investors' demands, together with fluctuations in international liquidity, lead the government to index bonds to floating exchange rates, such as the SELIC and exchange rates, which contributes to deterioration in public sector financial solvency conditions.

All these aspects can, to a certain extent, be summarised with Bresser-Pereira and Nakano's (2002) argument that the high interest rate in Brazil is due to the multiple functions it plays in the economy, namely: (i) reduce demand to control inflation, (ii) limit exchange rate devaluation to avoid cost inflation; (iii) attract external capital flows to meet balance of payment needs; (iv) reduce commercial deficit via internal demand control; and (v) induce investors to buy government bonds to finance the debt. In this sense, they claim, it is these multiple factors that explain the high interest rates rather than high NPSD.[218]

5.3.2.2. Government spending, tax system and constraints on fiscal policy

The above arguments, which defend an inverse relationship between public debt and interest rates based on the historical and institutional specificities of the Brazilian type of integration into the global economy since the 1990s, frequently have in the background the importance of fiscal policy and the coordination of fiscal, monetary, and exchange rate policies. To a certain extent this refers to the other part of the critique of the macroeconomic policies begun in the 1990s by Brazilian heterodox economists, i.e., the changes in the conception and implementation of fiscal policy. This critique focuses on attacking the dominant assumption that places government deficit control at the core of economic policy in Brazil since the implementation of Real plan in 1994. Here the critique is also complemented by a discussion of the composition of government spending and tax conditions in Brazil.

The government deficit control approach can be confirmed when looking at the size of the Brazilian government. Measuring the size of the government by the share of

[218] For more discussion of why Brazil's interest rates are high see Arida (2002), Arida et al. (2005), Barboza (2015), Erber (2010), Farhi (2005), Garcia and Olivares (2001), Gonçalves, Holland and Spacov (2007), Lara-Resende (2011), Lopreato (2002), Ono, Silva, Oreiro and Paula (2005), and Schwartsman (2011b). For interest rates and monetary transmission mechanisms in Brazil, see Barboza (2015).

government spending in GDP,[219] figure 5.10 shows that, although after 1994 government spending increased to a higher level than 1990, the level remained relatively flat after 1995. Strikingly, during the so-called neodevelopmentalist period, 2004-2010, these levels did not experience significant changes.

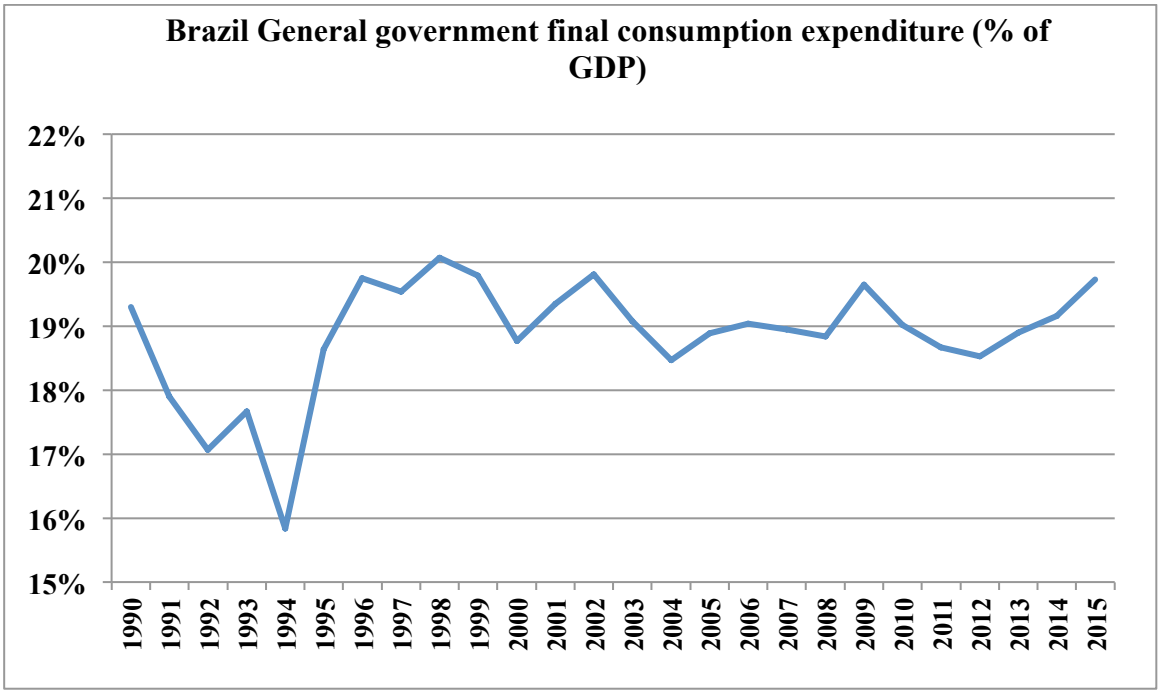

Figure 5.10: Brazil General Government Final Consumption Expenditure (% of GDP)
Source: The World Bank (2017)

This is an interesting outcome when contextualised within studies examining the relationship between the openness of the economy and the size of the government. Differently from Rodrik's (1998) argument that there is a positive correlation between trade openness (measured as a share of trade, exports plus imports, to GDP) and size of government (measured as a government consumption), figure 5.10 shows that this is not necessarily the case for Brazil when considering government final consumption expenditure.

However, as it was mentioned above, there are positive changes regarding government social expenditures after 2004 in Brazil. Figure 5.11 and Figure 5.12 show this change in terms of the primary expenditure of the Brazilian federal government

[219] Using the World Bank national accounts data, government spending is understood as general government final consumption expenditure (% of GDP). It "includes all government current expenditures for purchases of goods and services (including compensation of employees). It also includes most expenditures on national defense and security, but excludes government military expenditures that are part of government capital formation" (The World Bank, 2017 no pagination). The data does not include government transfers (social security, pensions, unemployment insurance and so forth) and public investment.

considering health, education and social protection (Bolsa Famíla, unemployment benefits, LOAS /RMV[220] and social security) (Ministério da Fazenda, 2016). Thus when disaggregated categories of government spending, such as general public services in health, education and social protection, are considered, the positive correlation pointed by Rodrik (1998) is seen in Brazil only after mid-2000s, exactly fifteen years after the commercial opening of the economy.

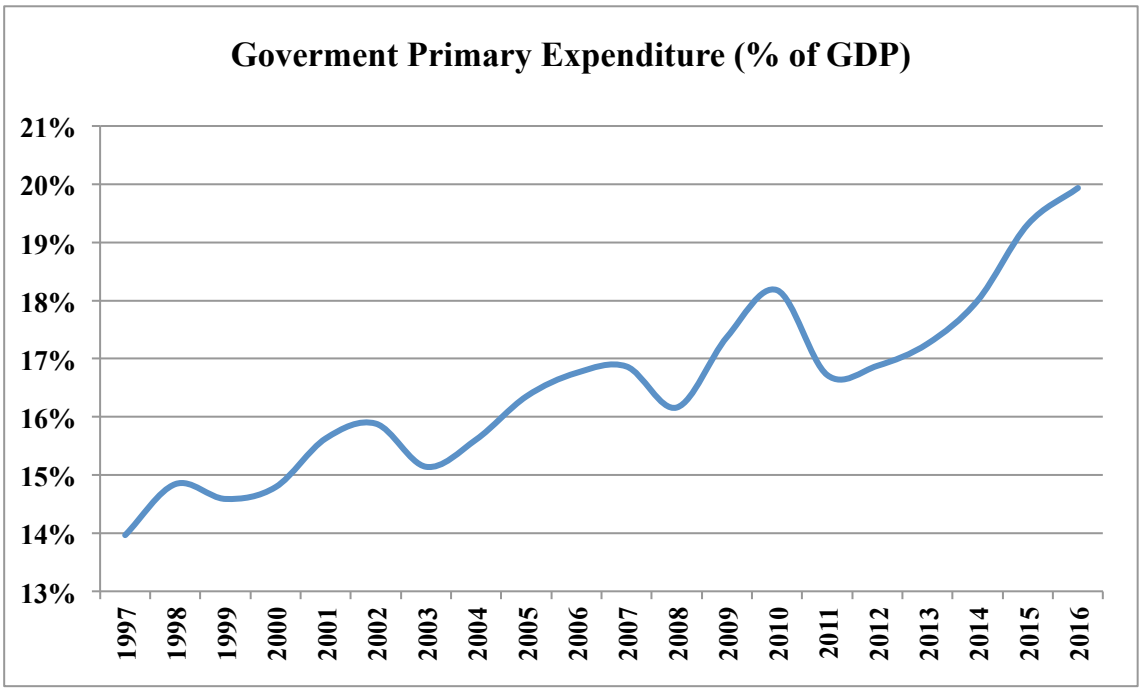

Figure 5.11: Primary Expenditure 1997 - 2016 (% of GDP)
Source: Secretaria do Tesouro Nacional (2016)

[220] LOAS – Organic Law of Social Welfare. RMV – Lifelong Monthly Income (for elderly and for people with disability).

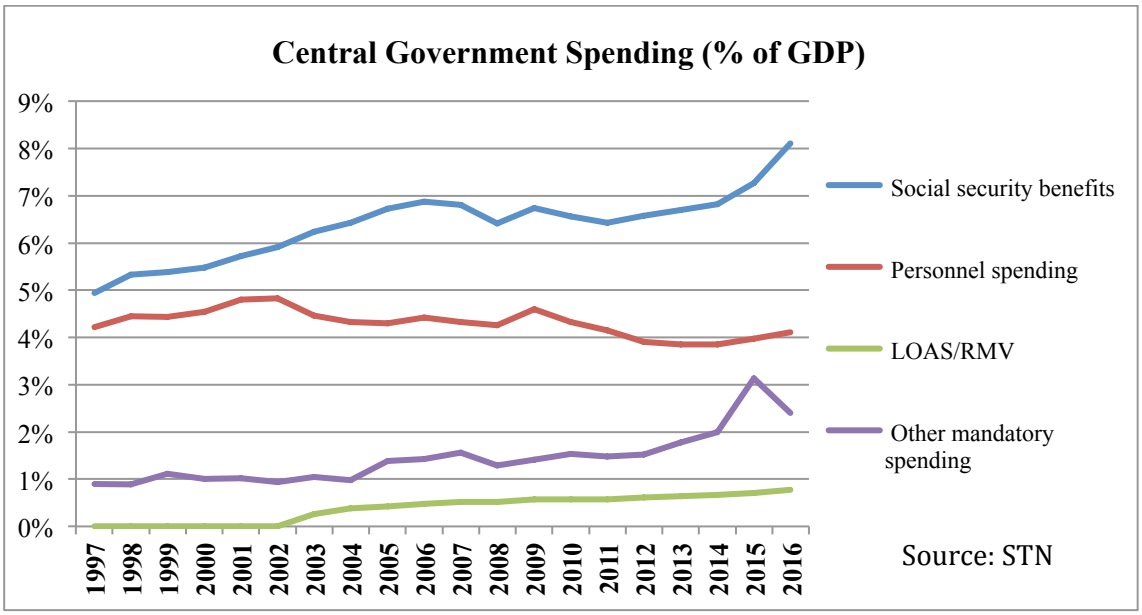

Figure 5.12: Central Government Spending 1997 - 2016 (% of GDP)
Source: Secretaria do Tesouro Nacional (2016a)

In more specific terms, a closer look to the share of social protection expenditures in total government spending (Figure 5.13) shows that in Brazil it makes sense to argue that there has been an increase of size of government when considering government transfers. Despite the lateness when contextualising this increase with the commercial and financial opening at the beginning of the 1990s, this outcome is in line with Onaran and Boesch's (2014) work regarding a positive correlation between globalisation and increase in government social expenditures, witnessed in Western and Eastern Europe.[221] According to the Brazilian 2016 Ministry of Finance's report, the increase of government spending essentially concentrated on income transference program of families, which reinforces social character of government expenditure in Brazil. Only more recently, this increase was reinforced by the increase of expenditures such as subsidies to energy and investments (Ministério da Fazenda, 2016, p. 2).

[221] Despite not being the focus of this thesis, it is possible to state that there is a correlation between openness and government transfers (social security, pensions, unemployment insurance, job training and so forth) in Brazil from mid-2000s onwards. However, this positive correlation between Brazil's economy exposure to international trade and the size of its government (when measured as a share of government transfers to the GDP) is more likely related to the social policies of the central-left Labour government that started after 2002. Although this can be understood as a causality running from openness to size of government as argue by Rodrik (1998), a direct and linear cause-consequence association between the Labour Party social policies and the needs of a bigger government to mitigate the external risk brought by trade openness is debated. Yet, one can argue that, for the case of Brazil, the positive correlation between openness and the scope of government in the fashion argued by Rodrik may be valid when considering both government spending on social security and welfare (which Rodrik (1998) associates with the case of developed economies) (p. 1019), and government consumption, notably public employment, in-kind transfer and public-work programs (which Rodrik (1998) associates with the case of developing economies) (p. 1019)).

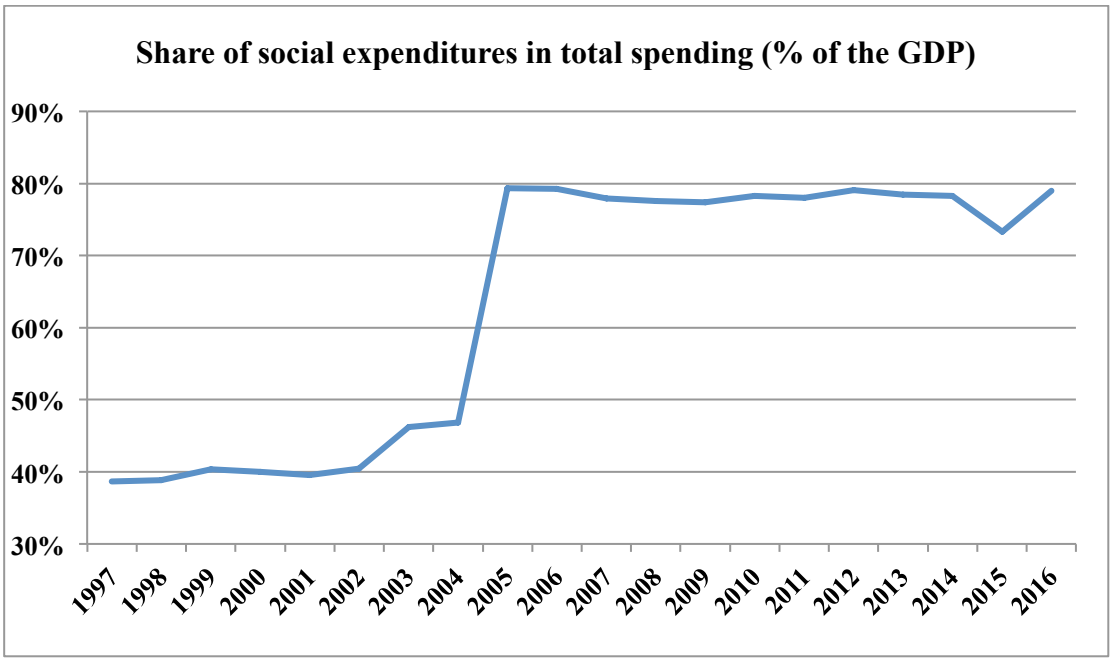

Figure 5.13: Share of Social Expenditure in Total Spending 1997 - 2016 (% of GDP)
Source: Secretaria do Tesouro Nacional (2016a)

This increase of government social expenditure in a context of increasing primary surpluses, no public sector savings, which raises questions what kind of fiscal activism was undertaken if the country were running surpluses, and heavy debt service indicate the contradictions and particularities of the Brazilian economic growth model. What can be seen in this specific context is not whether countercyclical fiscal policy can stabilise income in Keynesian fashion. It is whether a permanently higher level of government transfers can do so.

Yet, as stated above, this model was sustainable as long as there was economic growth and increase of tax revenues resulted from it (Figure 5.2 above and 5.14 below). By middle 2000s Brazil had one of highest level of tax to GDP when considering other middle-income countries. This is still valid, as Brazil's tax burden was around 33 percent of GDP in 2016 (Gobetti & Orair, 2017, p. 268).[222] In this sense, the question that comes together this increase of government transfers and intermediate spending categories like health and education is how these expenditures are financed. Does the burden lean towards taxes on labor or capital?

[222] It must be noticed that in Brazil the tax burden in the GDP is close to the average of the OECD countries. However, unlikely developed countries, the Brazilian burden is more concentrated on indirect and regressive taxes, as opposed to direct and progressive ones (Gobetti & Orair, 2017, p. 268). In addition, in OECD countries the portion of the tax that falls into goods and service is small (average of one third) when compared with the largest portion that targets income and assets. In Brazil, the situation is exactly the opposite as half of the tax burden comes from taxation on goods and services that, proportionally, imposes greater burden on poor households (Gobetti & Orair, 2015, p. 2)

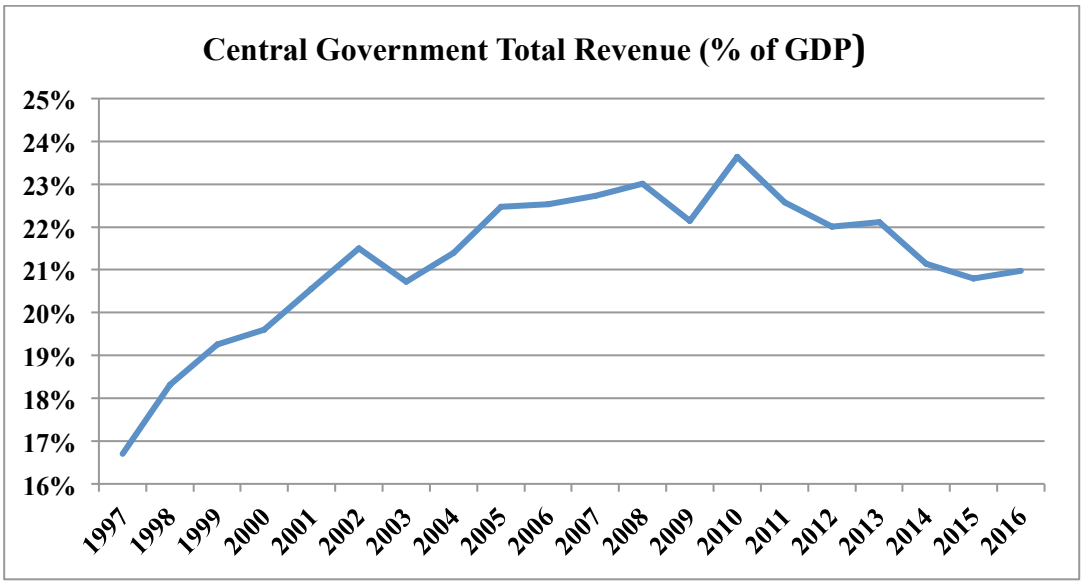

Figure 5.14: Central Government Total Revenue 1997 - 2016 (% of GDP)
Source: Secretaria do Tesouro Nacional (2016a)

A detailed analysis of the share of taxes on labour versus the share of taxes on capital in the Brazilian economy is beyond the scope of this thesis, particularly because this type of study demands tabulation and estimation procedures of the tax data existent on the Brazilian 'Large Numbers of Personal Income Tax Declarations' (DIRPF)[223] and/or household survey. Fortunately for this thesis, since DIRPF increased its transparency releasing more information to the public, there have been several studies showing more realistic analyses of the top of the income distribution and of issues on tax progressivity in Brazil. See, for example, Afonso (2014), Gobetti and Orair (2015), and Medeiros, Souza and Castro (2015). For studies relaying specifically on household survey, see Hoffmann (2002) and Soares, Silveira, Vaz and Souza (2010).

Gobetti and Orair (2015) present a compelling analysis stating that super-rich Brazilians pay less taxes, proportional to their income, than a typical upper middle class citizen, especially when considering waged employees. Their study shows that in Brazil, the principle of tax progressivity, which holds that tax rate must increase as the income increases, is constantly violated due to reforms implemented in 1988/89 and a cycle of increasing tax benefits for capital owners since mid-1990s (see below) (pp. 1-2). The reforms of 1988/89 followed a "Reagan-like move, abruptly reduced the number of tax brackets from 11 to only three, and the top rate from 50 per cent to 25 per cent." From then on, personal income tax in Brazil would never return to its previous progressive structure (Gobetti & Orair, 2017, p. 270).

[223] Grandes Números das Declarações do Imposto de Renda das Pessoas Físicas – DIRPF.

Gobetti and Orair (2017) reinforce the lack of progressivity in the tax system in Brazil showing that the largest portion of the income of 7.9 percent of taxpayers with a higher participation in the top strata of the income distribution is exempt, especially at higher brackets. Looking at the period from 2007 to 2013, it is also showed that there is a predominance of labour incomes among the taxable, and capital incomes among the withholding taxes and exempt (pp. 275-276).[224]

The main reasons for these distortions are both the complete tax exemption of dividends, which is a rare benefit in developed countries, and some tax exemption of profits. Out of the 71,000 super rich Brazilians, 50,000 did not pay any tax on dividends received in 2013. Further, these super rich citizens benefited from low tax on financial gains, which varies from 15 percent to 20 percent in Brazil, while wages are progressively taxed at a maximum rate of 27,5 per cent, which affects much more moderate levels of income (Gobetti & Orair, 2015, p. 1).

Interestingly, the cause for this distorted tax system has a very clear origin. Due to reforms implemented in the 1980s and 1990s as a result of mainstream recommendations,[225] Brazil has two fiscal peculiarities that directly benefit capital owners. Firstly, dividends paid by corporations to their shareholders are completely tax-free; this personal income tax exemption is very rarely seen in developed countries. Secondly, around the same year that the measure above was implemented, 1995, another benefit that significantly reduced corporate income tax also followed, i.e., the possibility of deducting a fictitious expense termed 'interest on net equity' from the company taxable profit. "These two fiscal peculiarities … are partially responsible for the low taxation of profits as well as the low progressivity of the country's PIT [personal income tax]" (Gobetti & Orair, 2017, p. 268).[226] Both reforms restricted the redistributive roles of taxes and favoured capital.

These aspects of the tax system in Brazil add another yet particularity to the economic growth model. Brazil follows the mainstream theory of the optimal taxation literature in which tax policy should abstain from any distributive aspirations (see

[224] For a more detailed discussion on how tax conditions in Brazil are more favourable to capital incomes, see Gobetti and Orair (2017), pp. 276-277.

[225] This recommendation followed the theory of optimal taxation and the assumption that "income tax should have a linear rate and capital income should not be taxed so as not to distort economic incentives" (Gobetti & Orair, 2017, p. 269). See Atkinson and Stiglitz (1976). Within the optimal taxation literature, tax policy "should abstain from any distributive aspirations, shifting this classic function of fiscal policy to public expenditure instead." (Gobetti & Orair, 2017, p. 268). Although there are reviewed approaches on this stance, see Mirrlees et al. (2011), Gobetti et al. (2017) argues that this fiscal model still prevails in Brazil (p. 268).

[226] For more details on tax benefits for capital owners in Brazil see Gobetti and Orair (2017), pp. 271-272.

footnote 225). Further, as stated by Gobetti et al., (2017), in Brazil there has been no progressive tax reforms in the last thirty years, even under twelve years of Workers' Party government (Gobetti & Orair, 2017, p. 269).

In this sense, different from developed countries where the institution of progressive taxes on income seems to have been crucial for the development of welfare state (Piketty, 2014), in Brazil it is still an open question whether or not the sharp increase in government social expenditure after 2004 has been followed by the development of a progressive tax system. In fact, in Brazil there is no "long-term and detail-rich study which would allow for the analysis of the evolution of tax structure and how it relates to welfare state (Gobetti & Orair, 2017, p. 270).

The analysis of the government spending composition and size of the government added to the primary surpluses ran since 1997 is crucial to show why the government deficit control approach adopted in the beginning of the 1990s has continued in Brazil. The increase of the primary expenditure of the Brazilian federal government considering health, education and social protection has essentially been afforded by increasing tax revenue within tax system that lacks progressivity and is based on continuous increasing tax benefits for capital owners.

Further, as it was discussed above, the so-called neodevelopmentalism during 2004-2010 is characterised among other things by an increase in public investment, credit and tax exemption policies. However, a contextualisation of these policies within a few particularities presented in section 5.2 also challenged the idea of the existence of expansionary Keynesian policies and, therefore, the end of the adoption of a government deficit control approach in Brazil.

Some these particularities can also be discussed through the main criticisms towards the government deficit control approach followed by arguments on the existence in Brazil of constraints on fiscal and monetary policy. For example, the mode of fiscal adjustment and management based on government deficit control and primary surpluses, adopted in Brazil since the 1990s, is criticised due to the restriction on government spending resulting from the causative relationship between monetary base expansion and inflation, which has been kept since the 1990s. According to this relationship, government deficits, it is argued, are responsible for the expansion of the money supply as the government monetises the debt when issuing government bonds. This launches an inflationary process, which in turn causes the nominal interest rate to rise. This view reinforces the control over government spending and imposes

restrictions on fiscal policy. However, not only does the explanation of high interest rates lie elsewhere, but explanations of inflation in Brazil should be sought in the difficulties in financing the balance of payments (Lopreato, 2002, p. 280).

The critique also applies to the marginal role given to the effects that government spending may have on output. Studies with a strong post-Keynesian influence argue that the control of the D/Y ratio, which has been fiercely pursued since the 1990s, is not achieved by an *ex ante* increase in the government primary surplus, but via an *ex post* increase from economic growth (Hermann, 2002, p. 13). From this perspective, an expansionary fiscal policy and a low interest monetary policy are necessary to stimulate investment.

In addition, a focus on the D/Y ratio means an assumption that the stock of the debt acts as an indicator of government solvency. However, it is the relationship between the flows of revenue and financial expenditure that measures solvency – and this does not necessarily follow the D/Y variations. The D/Y ratio reveals little about the real ability of the government to pay its debts, as it does not take into consideration government bonds' different maturities and indexes that represent a diverse level of government solvency (Terra et al., 2009). That is why works within the heterodox tradition in Brazil argue that monetary policy should focus on and have the flexibility to administrate the trade-off that exists between extending the debt maturity and increasing its cost, which is crucial for defining the profile of the public debt and the financial condition, i.e., solvency, of the public sector (Hermann, 2002, pp. 9–12).[227]

The idea that constraints on fiscal and monetary policy resulted from the macroeconomic policies adopted since 1994 is a persistent part of the critique made by the heterodox literature. At a more general level, it is argued that efforts to i) counteract international capital volatility and the interrelation between exchange rates and monetary policy, ii) control of domestic liquidity, iii) meet the demands of the financial market, iv) reduce the cost of monetary policy through open market operations (OMOs), and v) manage the particular IT regime that resulted from all these points led to contractionary fiscal policies aiming at ever higher primary surpluses (Corrêa & Biage, 2009; Hermann, 2002; Saad-Filho & Morais, 2002; Terra et al., 2009). As a consequence, the state role of stabilising the economy in the Keynesian sense is reduced by a monetary regime that focuses mainly on price stability and impedes the use of

[227] Herman (2002) and Terra et al.'s (2009) arguments rely on Minsky (1982) and Minsky (1992, 2008) respectively.

monetary policy as a tool for stabilisation of economic cycles, as, for example, in the Minskyian sense of the Big Bank (Terra et al., 2009).

The critique also extends to challenging the use of primary surpluses for the debt rollover. For Carvalho (2008), for example, the choice to use primary surpluses for debt rollover implied a perverse mechanism of income distribution, as the government adopted an austerity programme, reducing public spending and its multiplier effects on income and employment while generating savings with the objective of guaranteeing the debt service payment. Bluntly speaking, for Carvalho, public investments are replaced by payment of interest to rentiers. This is a particular and adverse use of the public deficits (p. 17).

Although coming from a different perspective, Morais and Saad-Filho (2005) and Saad-Filho (2003b, 2003a) argue that the fluctuation in international liquidity and the need to finance the current account deficit with capital inflows severely restricted the scope of fiscal and monetary policy, and that, at same time, the arrangement of these policies clearly shows the acquiescence of the economic policy to the financial markets. During the ISI period, fiscal policies were generally active, while monetary and exchange rate policies were accommodating. However, with the 1990s' reforms,

> fiscal, monetary and exchange-rate policy shifts towards a neoliberal policy compact. Under ISI (especially in its last period, 1968–80), fiscal policies were generally activist, while monetary and exchange-rate policies were accommodating. After the neoliberal transition, fiscal policy became increasingly contractionary … while monetary policy developed a more activist role, which was sometimes supported by the overvaluation of the currency. (Morais & Saad-Filho, 2005, p. 15)

These policy rules institutionalised the neoliberal priority of price stability over the growth of output and employment, and curtailed the government's ability to implement anti-cyclical policies while greatly favouring financial interests. In other words, fiscal policy became limited to adjustments in the fiscal surpluses that in turn supported the macro-economic disequilibria created by neoliberalism (Saad-Filho & Mollo, 2006, pp. 101-102).

Despite differences among the heterodox approaches, the analyses overlap with each other when arguing that the fragility of the financial public sector and issues

regarding its solvency are caused by financial costs resulting from the dominance of monetary policy while fiscal policy is confined to obtaining primary surpluses. In more specific terms, it is frequently argued that, since the 1990s, monetary policy has become contractionary, aiming at price stability (prices being market indicators for investors), which then does not allow for a broader use of monetary policy; and that fiscal policy has turned into the management of public deficit, which differs from management of public spending and tax policy in the Keynesian sense (Carvalho, 1999; Terra et al., 2009). These approaches most often consider the public debt together with the role of the state in implementing a counter-cycle economic policy. This role in turn depends on the financial capability and soundness of the public sector. If the public sector is financially fragile, it limits the ability of the government and its central bank to play this role.

In sum, in the fiscal adjustment and management model adopted in Brazil since the 1990s, the prominently developmental role of fiscal policy during the ISI was discarded and fiscal surpluses became vital to afford the imbalances generated by the monetary arrangement in place. Within the literature specifically discussing public debt, it is directly argued that economic policies with a Keynesian background were abandoned in the 1980s, and, from the 1990s onwards, the dominance of neoclassical framework has made itself felt. From this moment onward, the debate has focused on the financial costs of the monetary policy versus primary expenditure: in short, a dispute about whether fiscal or monetary polices are responsible for increases in the public sector debt was followed by a disagreement about the cause-consequence relationship between public debt and interest rates. Further, the so-called the idea of neodevelopmentalism in Brazil and, therefore, a possible change in the conception of state have to be taken with caution due to several particularities regarding government spending, taxes and monetary and fiscal policy, including, for example, the existence of a perverse regressive tax system.

5.4. Different channels through which the debt increases

Studies within the heterodox literature tradition present strong arguments that the dynamic of the SELIC has continually affected the stock of the public sector debt. The fiscal, monetary and exchange-rate policy arrangement in a context of open economy with no effective control of capital flows and a current account deficit is the key explanation for high interest rates and, as a consequence, the difficulty in

controlling the D/Y ratio and the financial fragility of the financial sector. However, the growing public sector debt in Brazil has wider causes. These are discussed by the heterodox literature, but very often under a larger umbrella of the financial cost of the monetary policy, which is then associated with the problem of high interest rates. This section separates these channels in order to show both the type of interventions demanded from the state after the 1990s and, to a certain extent, a public debt dynamic that does not necessarily depend on high interest rates.

The first channel is sterilisation policies. Fluctuations in international liquidity and financial crises are largely responsible for growing public debt due to sterilisation and reserve accumulation policies (see below). At stake here is the relationship between balance of payments and foreign exchange market (FX market) intervention by the BCB. In short, capital inflows with balance of payment surpluses force the BCB to buy reserves in the FX market while expanding the monetary base to keep the currency stable and avoid exchange rate appreciation. Then, to avoid an inflationary process, the BCB concomitantly sell bonds to sterilise the monetary base. This was the main factor behind the new issuance of government bonds from 1995 to 1996.[228] The NPSD in this context increases as it absolves the monetary base (Corrêa & Biage, 2009) (Figure 5.15).

The sterilisation of these inflows is also an expensive strategy for the government because interest rates on domestic bonds sold by the BCB are higher than interest rates on the foreign assets the government is buying. The difference between interests paid on foreign reserves,[229] i.e., public assets, and liabilities results in a implicit interest. The larger the difference between the interest rates paid on the gross debt, i.e., liabilities, and the interest remunerating public assets (and the larger the quantity of assets in relation to the net debt), the higher the implicit interest will be. See figure 5.9 above for the difference between the SELIC rate and the implicit interest rate. It is the implicit rate that should be considered when it comes to NSPD. Thus, sterilisation can create significant fiscal costs in the financing of a high level of reserve holding. The heavy burden of the sterilisation policies and accumulation of reserve in a

[228] Immediately after the implementation of the Real there was no central bank intervention in the FX market, as the government opted to let the exchange rate appreciate and thereby fight inflation (Corrêa & Biage, 2009, pp. 5–6). The government decided to intervene in the exchange rate only if it depreciated. That is, the monetary authorities in Brazil opted for an "asymmetrical exchange band" (Bacha, 1997, p. 181).

[229] The foreign reserves are remunerated based on the Libor rate and exchange rate variation.

context of liquidity is documented by Ferrari and de Paula (2003) and Nunes and Nunes (2000).

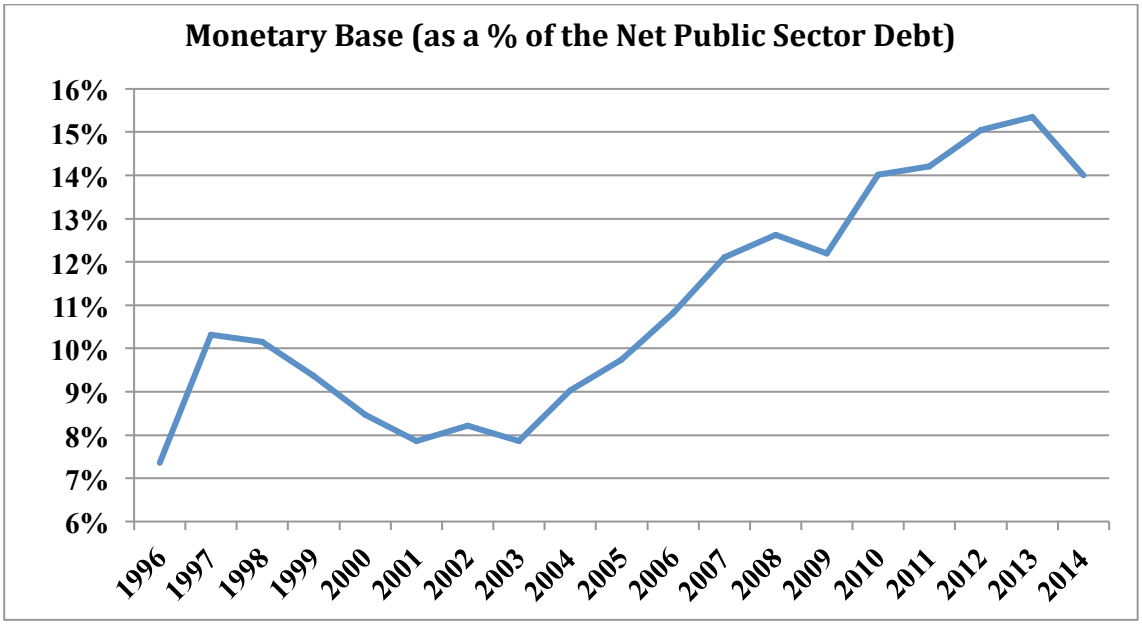

Figure 5.15: Percentage of monetary base as a total of the Net Public Sector Debt 1996 - 2014
Source: Secretaria do Tesouro Nacional (2016a)

The second channel is hedge mechanisms. The effects of capital flows have consequences for government bond profiles and maturities. From 1999 to 2002 – a period of international instability with sudden and abrupt movements of expansion and contraction of international resources, called feast or famine by the IMF (2003) – there was a reduction in portfolio and other investment towards Brazil[230] when this country was still having difficulties with its balance of payments. The financial flows became highly volatile and exchange rates reacted accordingly.

This oscillation of capital flows and exchange rates affected the debt profile, as the government opted to issue short-term bonds indexed to the exchange rate, US dollar and SELIC rate (Figure 10),[231] which is related to how the government offer hedge mechanism for financial investors (as was discussed in Chapter 4). Overall, the participation of floating rate indexed bonds (i.e. the provision of hedge mechanisms for the private financial and non-financial sector) in the public debt in periods of international capital oscillation is high. However, although Figure 5.16 shows a decrease in the SELIC indexed bonds since 2010, a general comparison between

[230] For a detailed analysis of capital flows, their different modality and volume toward Brazil after 1994 see Corrêa and Biage (2009) and Marques and Nakatani (2013).
[231] US dollar indexed bonds stopped being issued in Brazil around 2001-2002. Chapter 6 discusses this in more detail.

floating rate and fixed rate bonds shows the former rising steadily regardless of changes in international liquidity (Figure 5.17).[232] The same observation can be made for bond maturities, which have been extended since 1999, but are still very short-term, normally maturing in 24 to 36 months (Figure 5.18).

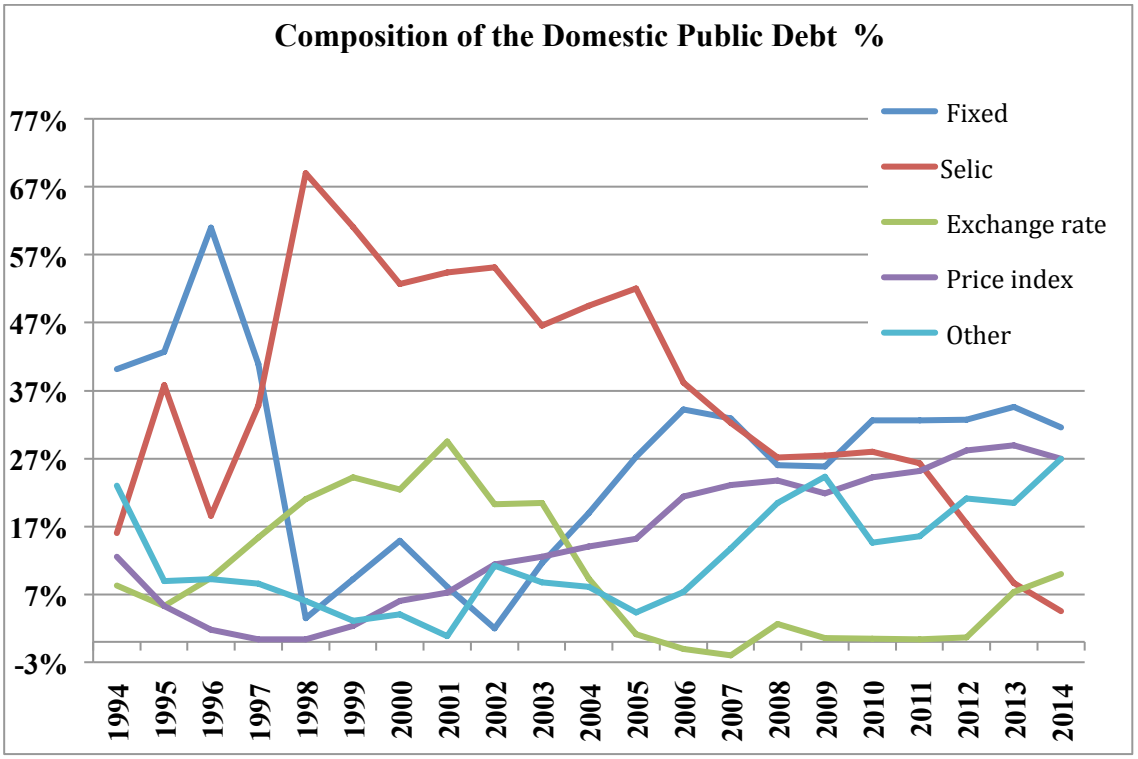

Figure 5.16: Composition of Domestic Public Debt 1994 - 2014
Source: Banco Central do Brasil (2016a)

[232] For an explanation of the types of government bonds in Brazil, see annex at the end of the thesis.

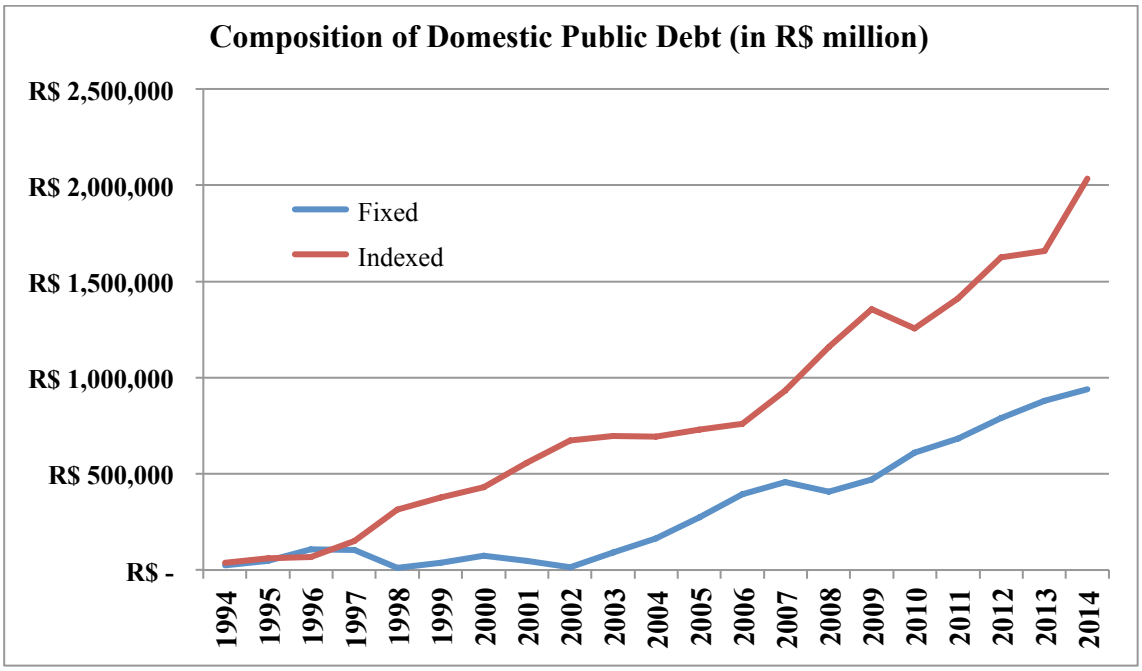

Figure 5.17: Domestic Public Debt: Floating (indexed) and Fixed rate bonds (in R$ million) 1994 - 2014
Source: Banco Central do Brasil (2016a)

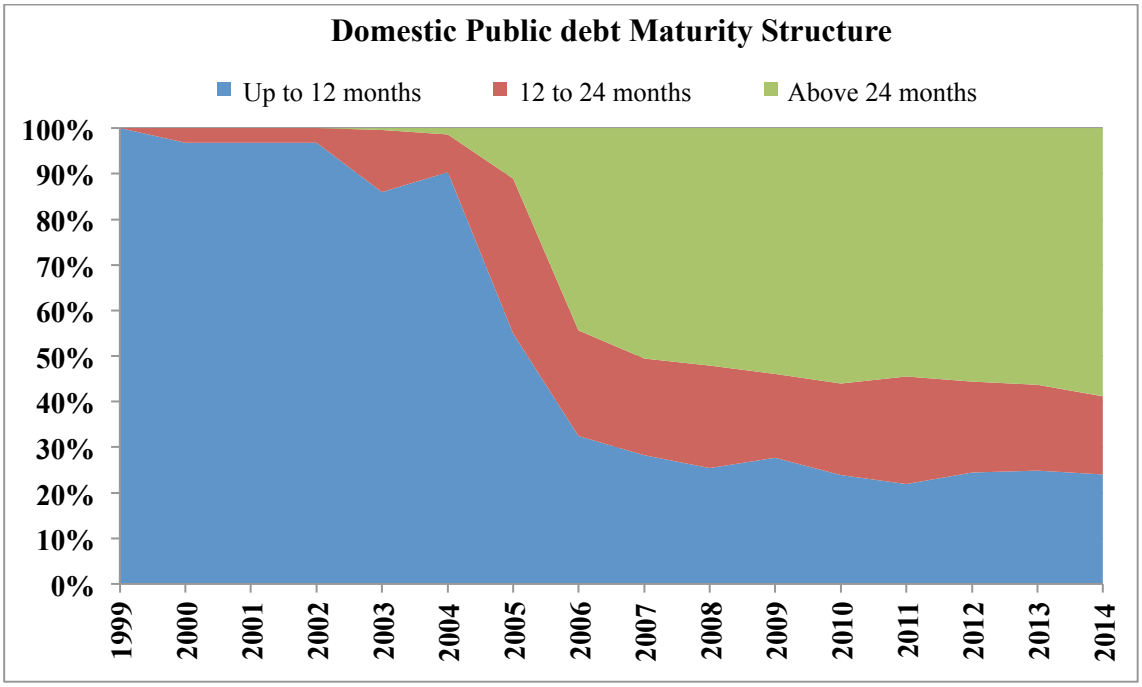

Figure 5.18: Domestic Public Debt Maturity 1999 - 2014
Source: Secretaria do Tesouro Nacional (2016a)

In more specific terms, between 1994 and 2014 the oscillation of the exchange rate directly affected the public debt because:

- The devaluation affects return on the dollar-indexed bonds that make up the NSPD.
- The exchange rate indexed bonds may result in significant losses for the government while bringing gains for investors who force devaluation with speculative operations; this then leads the government to use its foreign reserves to avoid further devaluation (Alves et al., 2004; Hermann, 2002; Saad-Filho & Morais, 2002). For example, between December 1997 and December 1998, before the exchange rate crisis, the stock of exchange rate bonds increased from US$35.4 billion (15.4 percent of the federal security debt) to US$56.9 billion (21.0 percent). An attempt by central government to stabilise the exchange rate through the BCB's selling of US$15-20 billion in the dollar futures market turned into an unforeseen handout to speculators when the Real was devalued in 1999. Foreign reserves dropped from US$70.9 billion in June 1998 to only US$33.8 billion nine months later (Saad-Filho & Morais, 2002, p. 17). The increase in the NSPD due to these measures is estimated at 7 percent of GDP during 1999. This was almost entirely due to the effect of the devaluation of the exchange rate indexed bonds and other public securities (Bevilaqua & Azevedo, 2005, p. 122). Similar hedge mechanisms were provided by the BCB during the Real devaluation in 2001, with equally high costs for the public sector (Dodd & Griffith-Jones, 2007, p. 42).
- The devaluation affected the result of foreign exchange swaps operations (FX swaps).[233] FX swaps operations are derivative instruments in which the BCB pays US$ variation plus local onshore US$ interest rates, and receives in exchange the cumulative one day interest rate on interbank certificates of deposit (the so called CDI rate)[234] over the period of the contract (Bevilaqua & Azevedo, 2005, p. 124). From the perspective of the government, FX swaps may result in losses (gains) if there is a large (small) difference between exchange rate variations and the CDI rate. Therefore, these operations result in a financial expenditure (revenue), which has to be computed as public sector net indebtedness. At the end of 2002 and 2003, for example, FX swaps had reached

[233] FX swaps began to be used in Brazil by the BCB around 2001-2002, replacing the dollar-indexed bonds. The next chapter discusses this in more detail.
[234] CDI rate is the average one-day interbank deposit rate (Certificados de Depósito Interbancário), also known as overnight DI rate. See annex. The SELIC and the CDI rate are very similar. The CDI rate is for money market transactions without collateral and registered with the CETIP, a local clearing house, and the SELIC rate is for repurchase transactions with collateral and registered with SELIC system.

a total of US$20 billion and US$40 billion respectively, more than 10 percent of total public debt (Dodd & Griffith-Jones, 2007, p. 43).

- During periods of exchange rate valuation, especially after 2004, the BCB, in an attempt to contain the dollar devaluation, started using reverse FX swaps operations, which involves buying dollars in the futures market while selling government bonds, leading not only to pressures on interest rates, but also to an increase of the PSBR under its nominal concepts. Thus, the valuation of the exchange rate also results in an increase in NPSD.

The third channel through which public debt increases is via the cost of foreign reserve accumulation for the public sector debt. Empirical evidence shows that the accumulation of foreign reserves is undeniable and unprecedented in emerging markets in general and in Brazil in particular (Figure 5.19), as discussed in Chapter 4. When financial institutions sell foreign reserves, the BCB buy them by issuing Real, which then increases the liquidity of the financial system and (usually) causing the interest rate to fall below the SELIC rate defined by the Monetary Policy Committee (COPOM). In order to avoid this, the BCB exercises repo operations with government bonds for the financial market aiming to diminish liquidity (Figure 5.20).[235]

In this sense, the accumulation of foreign reserves is an accumulation of government assets that is mirrored by the increase in the public sector debt, more specifically the gross public sector debt; later, the NSPD is also affected due to the interest rate differential between government bonds (high domestic interest rates) and the remunerations of the foreign reserves (international rates) (see above) (Bastos, 2015a, 2015b; Kaltenbrunner, 2010; Kaltenbrunner & Painceira, 2009; Painceira, 2009, 2010; Saad-Filho & Morais, 2002).

[235] Repo has been one of the main tools of monetary policy in Brazil. Generally speaking, its use is due the need to sterilise the monetary base to keep the currency stable and avoid exchange rate appreciation. The reasons triggering their use range from capital inflows to the purchase of foreign reserves (see Chapter 6).

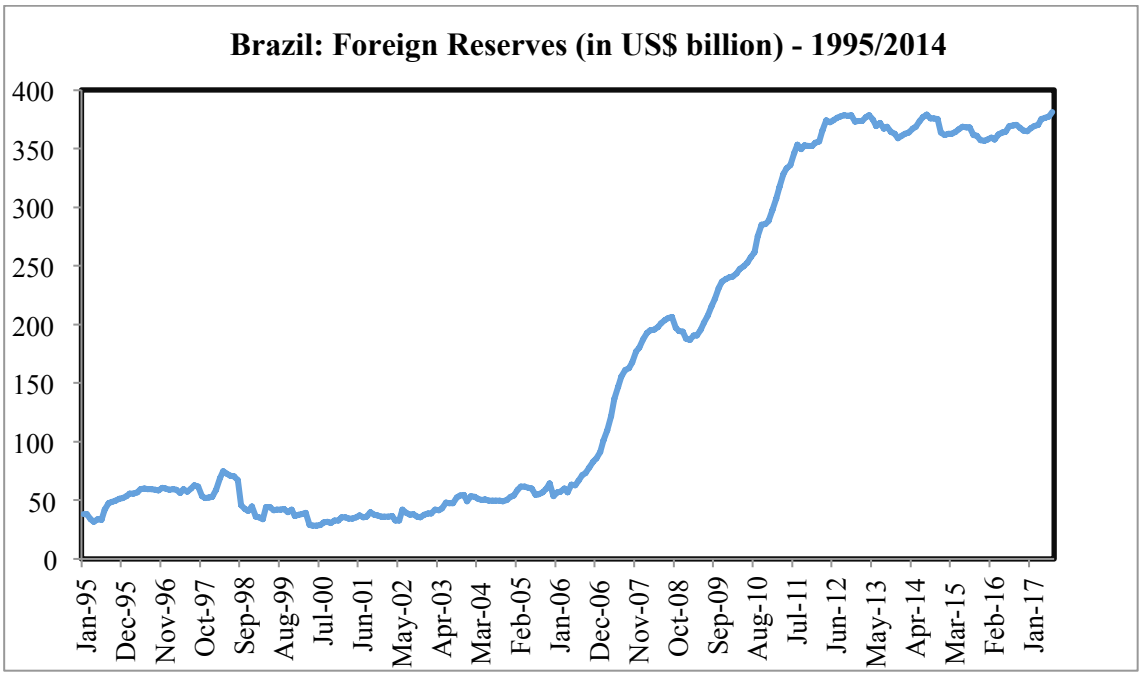

Figure 5.19: Brazil Foreign Reserves (in US$ billion) 1995 - 2014
Banco Central do Brasil (2016a)

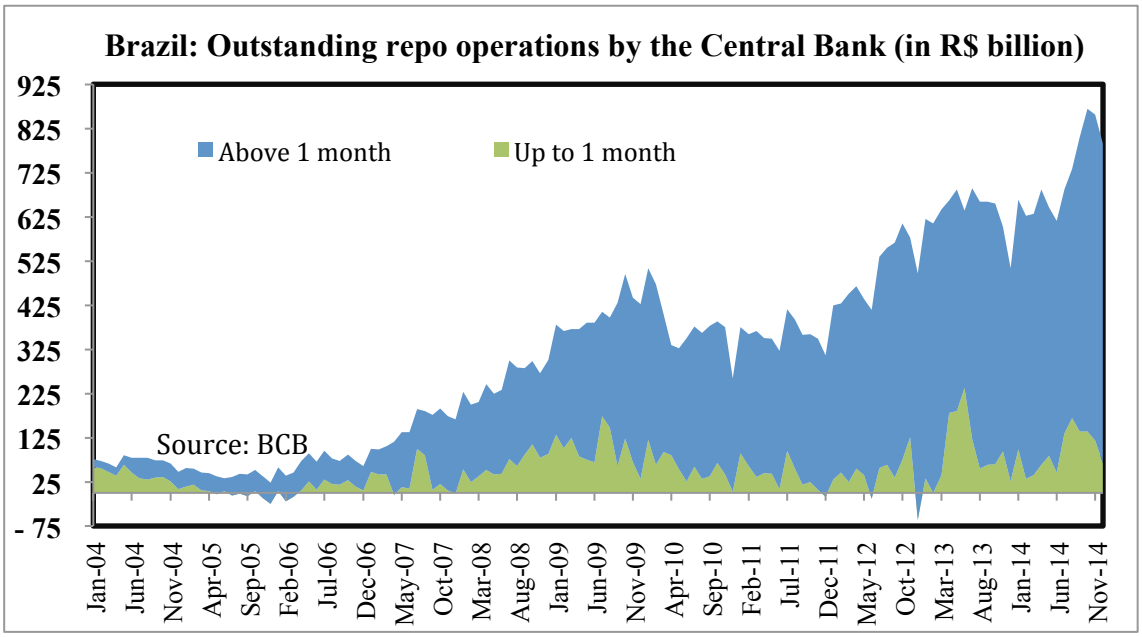

Figure 5.20: Brazil Outstanding repo operations by the Central Bank (in R$ billion)
Banco Central do Brasil (2016a)

Heterodox scholars acknowledge and examine these channels, but, despite the contextualisation within the transformation since the 1990s, there has been no attempt at a systemic analysis of these operations. In other words, the channels discussed above are not jointly understood as the state's increasing involvement in financial transactions through the myriad of new financial instruments; and within scenario that enables rather than constrain its economic policies. Thus, there is no challenge regarding the fact that

these operations involve an issuance of government bonds that has nothing to do with fiscal policy.

In more general terms, the majority of heterodox public debt analyses does not discuss, let alone make clear, that all these operations have a financial cost for the public sector, but respond to non-fiscal imperatives. This shows the extent to which these analyses are prisoners of the traditional view of public debt discussed in Chapter 2.

As in the theoretical discussion of public debt and fiscal and monetary policy in Chapter 2, the costs incurred by this type of monetary policy (and in the Brazilian case, exchange rate policy as well) are not properly considered. Although heterodox economists highlight the impact that these operations have on the public sector debt, the reality is that their cost is not an integrated part of either the Brazilian National Treasury or the BCB budget. At no point is this cost explicitly acknowledged, explained or demonstrated by the government, as neither the operation with reserves nor the issuance of these bonds, for example, transit through the government budget in Brazil in an *ex ante* fashion. In this sense, the challenges raised by heterodox economists are limited, as there is no broader discussion of the role that monetary and exchange rate policy has assumed in Brazil since the 1990s together with the incorporation and transparency of their cost to the public sector debt.

Finally, despite the alarming tone denouncing the costs and impacts of these operations and the acknowledgment that investors have a strong influence over government bonds issuance and debt rollover, the discussion about public debt profile and maturity by these scholars is to a certain extent stuck in the past, as well as restricted to how the government should use monetary policy to administer the trade-off between extending the debt maturity and increasing its cost (Alves et al., 2004; Corrêa & Biage, 2009; Hermann, 2002; Terra et al., 2012); consequently, some of these scholars have engaged uncritically with the cost versus risk approach proposed by the PDM.

For example, the speculative behaviour in, and speculative attacks on, the Brazilian economy in a context of trade and financial liberalisation, followed by the costs for the public sector, are discussed in terms of how the role of the speculators is essential in the financial markets, because they can take the risks of acting against the market in anticipation of future movements in asset prices (Alves et al., 2004, p. 178). However, this approach is unable to reconcile this ‘essential’ role of the speculator and

its implication for the state or the state's engagement with it. Despite not dealing directly with public debt, for scholars discussing neoliberalism, these aspects are simply understood as a submission of the state to financial markets (Boito, 2007; Novelli, 2016; Paulani, 2008; Saad-Filho & Morais, 2002).

In sum, these different channels are frequently and generally discussed as simply the financial costs of the monetary policy. However, for this thesis, they are two different things: 1) the financial costs resulting from the high interest rates set by the BCB and the SELIC, which demand new issuance of government bonds under a nominal result of PSBR and 2) the financial costs of monetary and exchange rate policies that involve interest rates differentials (implicit interest rates), exchange rates and CDI differentials, and fiscal costs due to issuance of new bonds resulted from monetary tools. Both are financial factors behind the increasing government deficit (flow), which then results in the increase of the NPSD (stock) through either its gross or net concept. Yet, these factors cannot be broadly summarised as an issue of high interest rates only together with the simple argument that the state in Brazil is compromised and constrained by private financial institutions' short-term interests. Missing from these analyses is the idea that public indebtedness and government bonds may be a cause and not a consequence of government spending. To explore this, it is necessary to think of these bonds as titles to fictitious capital and to contextualise the approaches above within the financialisation process. This will be done in the next chapter.

5.5. Conclusion

This chapter has examined the debates between orthodoxy and heterodoxy on the drivers of public sector debt in Brazil.

The mainstream approach, based on the government deficit control approach, argues that the cause of the increase in and dynamics of Brazil's public sector debt is found in the increasing primary expenditures and low primary surpluses. Analyses within this tradition note that if the primary surpluses are achieved, the issue regarding the increase in the public sector debt is then found in non-repetitive factors, such as the restructuring of the domestic financial sector at the end of the 1990s and the 2006 amortisations of public debts in the forms of the Paris Club and Brady Plan.

These approaches also greatly emphasise the need to reduce and stabilise the D/Y ratio to permit a decrease in interest rates. In this sense, not only is fiscal consolidation and a rise in tax revenues necessary, but also the use of monetary policy

as an instrument to manage debt indexes and maturity aiming at the stabilisation of the D/Y ratio and decreasing the cost and risk of the debt.

The mainstream approaches are easily refuted by the heterodox approaches based on a simple *ex post* arithmetic analysis that, in comparing primary surplus against nominal interest expenditure, shows that the financial costs of the public sector debt are responsible for the increase in debt stock. Essentially, a monetary policy of high interest rates, determined by external pressures on the exchange rates and an obsessive focus on price stability, made the primary surpluses an inept tool to control D/Y ratio.

The main point of disagreement in this context lies in the reasons behind Brazil's high interest rates. Whereas, for mainstream economists, high public debt leads to high interest rates, for the heterodox approach the relationship is exactly the inverse, i.e., high interest rates lead to high public debt mainly because, in Brazil, the majority of government bonds are indexed to the SELIC rate. Thus, long-term high interest rates increase the cost of debt services.

The heterodox angle allows the analyses of Brazil's public debt to be interwoven with the macroeconomic dynamic that emerged in the 1990s and, more specifically, after the Real Plan in 1994. The examination of the public debt from this perspective is rich and diverse, but it can be summarised in two main points.

Firstly, the acknowledgment of a particularity of the Brazilian economy, i.e.: interest rates in Brazil are high due to multiple factors, such as controlling inflation, limiting exchange rate devaluation, attracting capital inflows, reducing commercial deficit, guaranteeing demand for government bonds, and the exercise of monetary policy operations such FX swaps and repos funding, which both demand higher interest rates.

Secondly, in a floating exchange rate and IT regime, the government keeps the exchange rate stable through a long-term policy of high interest rates, debt indexation to SELIC and exchange rates as well as FX swaps. This means that the dynamics of the public debt have a close relationship with the articulation between interest rates and exchange rate policy, resulting in the increase of the DPD through various channels, generally discussed as the financial costs of the monetary policy.

This scenario leads the heterodox literature to argue about restrictions on fiscal and monetary policy. The literature sees both policies as becoming contractionary and unable to be used as tools of a counter-cycle economic policy. The inflexibility of fiscal

and monetary policy is accompanied by a discussion of the neglect of fiscal policy since the 1990s due to the government deficit control approach.

Although it seems there is no reason to disagree with the majority of the heterodox approaches, this chapter challenges some aspects of their analyses. The particularity of the Brazilian economy in respect of the interrelation between exchange and interest rate policies, and the SELIC rate system, are indeed facts that result in a great financial cost for the public sector. It is also important to make clear, as these approaches do, that it is necessary to look beyond primary concepts when seeking the drivers of the PSBR. However, a closer look at the channels through which the public debt increases reveals three important points.

Firstly, there is no attempt at a systemic analysis of the increasing use of and reliance on techniques of intervention by the state in the domestic financial market. Thus, there is no challenge to the fact that some of the operations performed by the BCB involve an issuance of government bonds that has nothing to do with fiscal policy. These operations have a financial cost for the public sector, but respond to non-fiscal imperatives.

Secondly, and linked, these costs are not explicitly acknowledged, explained or demonstrated by the government, as neither the operation with reserves nor issuance of these bonds transit through the government budget in Brazil in an *ex ante* fashion. Again, the heterodox school does not really challenge this.

Finally, the discussion on public debt profile and maturity is confined to administering the trade-off between extending the debt maturity and increasing its cost and/or submission of the state to financial markets. This limitation obstructs the understanding of a new and active role performed by government bonds and the necessary profile for this, which, as discussed in Chapters 2 and 3, goes back to understanding these bonds as titles to fictitious capital and not the result of public deficits.

A critique of the mainstream approach to public debt in Brazil should not mainly focus on debt service, high interest rates and a general idea of financial costs of the monetary policy. Further, economic policies (be they monetary or exchange rate) based on the use of government bonds should not be understood as government financing via government bonds, and, therefore, fiscal deficits. As argued in Chapter 3, government financing in the context of financialisation may lead to governments issuing debt, not to finance expenditures, but to support and manage the development and liquidity of

financial markets. Lastly, the indexation of government bonds to floating rates should not be understood as detached from a type of monetary policy that aims to prioritise the management of and guarantee the functionality of the financial markets, which does not necessarily mean a restriction or constraint to this policy.

The next chapter addresses the process of financialisation in Brazil in order to complement the heterodox analyses of public debt in this country.

Chapter 6 – Financialisation and domestic public debt in Brazil

6.1. Introduction

Financialisation in Brazil is discussed through four main strands. The first aggregates studies having as a start point dimensions of financialisation found in developed countries, such as increasing involvement of non-financial corporations (NFCs) in financial activities, increasing individual indebtedness, and increasing speculative and trade risk operations, to then examine these dimensions in Brazil. The second examines the process of financial globalisation and its impact in countries like Brazil, considering the subordinate position that this country has in the international financial and monetary order. The third looks at the proliferation of fictitious capital in the international financial system and how this capital flows to Brazil in search of high yields. The fourth discusses the implementation of neoliberal policies in Brazil, and the relationship of these policies to the emergence of a finance dominance over policy in this country, supported by local groups who profit from financial investments guaranteed by these policies.

These approaches overlap with each other and present weaknesses that will be explored in the chapter. The three main weaknesses are: the treatment of financialisation by its parts, neglecting the entirety aspect of the phenomenon; the excessive focus on financial liberalisation and international aspects of financialisation, followed by an emphasis on how both impose constraints and limitations on economic policies in Brazil; and a broad discussion of finance dominance based mostly on financial gains from high interest rates and the monetary policy support to this.

In an attempt to both bring these discussions together and explain the process of financialisation in this economy, this chapter considers that financialisation has always been international and the way the process takes place in Brazil is related to the channels through which the trade of financial assets and financialised practices, such as hedging, speculation and securitisation, develop in this economy. This has demanded state intervention in terms of lifting regulations that impede these practices, and developing and implementing new regulations and reforms that allow this type of trade to flourish.

From this perspective, there are two crucial aspects to understanding how financialisation in Brazil was triggered. The first is the rise of financialisation itself through a set of reforms resulting from the collapse of the Bretton Woods system, which included Brazil at two different moments, namely, the recycling of the petrodollars followed by the measures taken to solve the debt crisis, and the implementation of the Washington Consensus (WC) in the 1990s. The second is the crisis that the Brazilian economy was going through by the end of the 1980s, which facilitated the implementation of a different regime of growth based on foreign savings and financial development and deepening.

The development of financialisation in Brazil is marked by the exponential growth of one particular type of fictitious capital, government bonds. The majority of the studies in these four approaches either mentions or emphasises the public sector financial fragility, continuous budget deficits and increasing public sector indebtedness. However, only a few move beyond the argument that government bonds are an attractive and safe financial investment and/or the association of this increase with a policy of high interest rates.

This chapter takes a different direction, attempting to understand the drivers of the increase in Brazil's public debt and their relationship with the financialisation process in this country. This will show not only the reformulation of the state in a different fashion – not just having its policies limited or constrained – but also the extent to which the process of financialisation in Brazil is underpinned by government bonds.

Following this introduction, the chapter is divided into four sections. The first offers an overview of the literature discussing financialisation in Brazil, following the four approaches division. The second makes the argument that financialisation in Brazil is neither a copy of the practices seen in developed economies nor a consequence of the international aspect of financialisation broadly understood as financial liberalisation. The 1990s' integration of the Brazilian economy into the global economy is part of the rise of financialisation in capitalism. Therefore, the integration resulted in laying the grounds for the proliferation of fictitious capital in this economy and the issue is to examine and understand where and how this happened. The third section argues that financialisation in Brazil has a particular feature as it is underpinned by state use of government bonds to manage the implications and contradictions of the process while deepening and fomenting it. The last section concludes.

6.2. Financialisation in Brazil: an overview of the debate

It is relatively difficult to survey the literature discussing financialisation in Brazil because only a few authors directly address the issue. A large part of the discussion is contained in studies about financial globalisation and neoliberalism. This section gives an overview of this discussion, dividing the literature into four main strands.

The first refers to a literature largely grounded in the analysis of financialisation in advanced economies, and in the attempt to map the phenomena encountered in the Anglo-Saxon core onto developing countries. This group contains analyses closely associated with the Regulationist School (see Chapter 4),[236] which show the increasing involvement of NFCs with financial markets and, in some cases, discusses how the Brazilian economy has operated under a finance-led regime since the 1990s (Araújo, Bruno, & Pimentel, 2012; Bruno & Caffé, 2015; Bruno, Diawara, Araújo, Reis, & Rubens, 2011; Correa & Vidal, 2012; Farhi & Borghi, 2009; Medialdea, 2013; Paulani, 2010; Rossi, 2013).[237]

There are also analyses focusing on the issue of epochal transformation in the financial system and looking at the entry of foreign banks into the Brazilian economy. This entry has led to the adoption of practices found in financialised developed countries, in particular, lending to individuals for mortgages and consumption (which has resulted in rising levels of individual indebtedness) and increasingly funding through market activities rather than deposits (dos Santos, 2011, 2013; Painceira, 2012). International trading with short-term securities as an income generating and risk-diversification device is also witnessed in developing countries such as Brazil. In this case, analyses expose the pernicious effects that the trade of securities can have on the exchange rate and government borrowing capacity (see for example Hardie (2012) and Kaltenbrunner (2010)).

The pertinence of the approaches mentioned above is indisputable. However, in terms of defining general features of the financialisation process in Brazil, they should

[236] Approaches based on the shift in the mode of regulation are popular among authors examining financialisation in Brazil. This is because the Regulationist framework, with its focus on evaluating the development of and changes in monetary and financial regulation that give rise to finance-led accumulation regimes, provides a solid ground for linking the policy advice of proponents of financial liberalisation and financial development (which many emerging economies since the 1970s have followed) with the initial process of financialisation in these economies.

[237] See particularly Campelo (2007), who shows that between 1996 and 2006 the proportion of financial investments in company assets increased more than 50 percent in Brazil.

be taken with caution. The process cannot be defined in a piecemeal fashion (see Chapter 4). Further, the transposition of the financialised practices of developed economies to developing economies should be careful to include the limitations that the structure of the Brazilian economy presents to these channels of financialisation. For example, the Brazilian capital market, although developed when compared to other developing economies, is still shallow and small (Franco, 2006). In this sense, increases in consumption occurring due to the wealth effects originating in the financial markets for economies such as Brazil is a feeble basis on which to underpin and lead the process of financialisation in this country.

Note that financial markets in developing economies are much smaller relative to the GDP than those in mature markets. By 2010, the total value of all emerging market financial stock was equal to 197 percent of the regional GDP (161 percent if China is excluded): much lower than the 427 percent of the regional GDP of mature economies. The stock market capitalisation of the US is 119 percent of its GDP while that of the whole of Latin America is 57 percent of the regional GDP. Emerging markets' financial stock is growing much faster than that of developed markets, increasing by 13.5 percent in 2010 compared with 3.9 percent in mature economies. However, emerging economies collectively account for only 18 percent of the world's total financial stock. Further, financial depth is lower in emerging economies, primarily because of the absence of corporate bond and securitisation markets (Roxburgh, Lund, & Piotrowski, 2010, pp. 4–5).

A similar point is valid for the banking system. Although growing, as noted by dos Santos (2011), personal indebtedness increase as a significant feature of financialisation should also be taken with caution, given the depth of the Brazilian banking system. There is not enough evidence to argue that financialisation in Brazil has had the same characteristics as developed economies in terms of debt-driven expansion of finance based on the flow of household income into financial markets.

Dos Santos (2011, 2013) and Painceira (2012) show the credit to households increasing dramatically from low levels, which is a distinct feature because this type of credit was less common before. Yet, other areas of the economy should also receive the same analytical attention. For example, Farrell et al. (2008) show debt securities in Brazil were divided into 29 percent private securities and 71 percent government securities (p. 34). Further, the securitisation market in Brazil should also be analysed carefully, as an increase in personal debt alone cannot account for financialisation.

The second strand discussing financialisation in Brazil has its roots in the 1990s, when scholars were trying to understand the concept of globalisation for peripheral countries. The key concept here is financial globalisation, which is frequently and broadly understood in terms of increasingly financial and exchange rate liberalisation, and changes in patterns of intercapitalist competition that resulted in expansion of commercial and foreign direct investment (FDI) (Carneiro, 2006).

Works related to and derived from the financial globalisation approach include studies arguing that since the 1990s there has been a rentier logic in Brazil over the productive logic, with analyses stating that financial valorisation surpasses the real output growth (Belluzzo, 1997; Braga, 1997; de Mello, 1997; Corazza, 2009; Filgueiras & Pinto, 2003; Fiori, 1997; Gonçalves, 1999; Ianni, 1995; Mollo & Amado, 2016; Tavares, 1997; Tavares & Melin, 1997).

Other studies have focused on the discussion about globalisation and speculative attacks or, more broadly, external vulnerability and volatility in exchange and interest rates (Alves, Ferrari, & de Paula, 2004; Andrade & Prates, 2013; Canuto & Laplane, 2016; de Paula, 2011; de Paula, Fritz, & Prates, 2015; de Paula et al., 2015; Ferrari, 2002; Ferrari & de Paula, 2003; Fritz & Prates, 2014).

Several of these analyses are heavily based on the traditional Latin American centre-periphery thought and on the hegemonic role played by the US dollar in the international financial and monetary system since the collapse of Bretton Woods.

This is a rich literature with several different key issues to be explored. The most relevant is the issue of the dollar as world money and the convergence of national economies around the globe towards a set of coordinated monetary and fiscal policies in support of the arrangement that emerged after the Bretton Woods collapse (Tavares, 1985, 1997; Tavares & Melin, 1997) (see Chapter 4). This convergence reached Brazil in the 1990s through the WC and neoliberal policies. The reforms resulting from the dollar hegemony reflected the subordinate position that Brazil has in the global financial market, and the weak status of its currency against the US dollar.

From this perspective, financialised practices emerge in a specific structure that relies on policies regarding exchange rate fluctuation, inflation control and a strong government bond market (see below). Further, the enhancement of some of these practices happens precisely because of this specific structure, which results, for example, in financial activities exploiting the high yields of domestic assets and/or the security of US assets. Despite internal differences, the literature that unfolds within this

tradition keeps the core idea that financial globalisation in Brazil implies relations of subordination and dependency that have existed since colonial times, and which therefore give distinctive features to the process of financial integration in this country.

The third strand of literature also has its starting point based on the changes in the international financial market and refers to studies discussing financialisation in Brazil from the perspective of expansion of fictitious capital represented by shares, bonds, derivatives, and other new instruments (Carcanholo & Nakatani, 1999; Marques & Nakatani, 2009, 2013; Nakatani, 2000).

The financial ascendancy and the increasing financial deregulation and liberalisation mark the contemporary phase of capitalism whose defining characteristic is the predominance of an international speculative and parasitic logic over production (Carcanholo & Nakatani, 1999, p. 306). This logic, which started with the collapse of the international monetary order in the 1970s, distinguishes the contemporary form of globalisation from the previous periods of capitalist history.

The predominance of a speculative logic and the huge growth of international fictitious capital have not only exacerbated the competition among productive capital, due to the pressure the speculative gains imposed on the surplus value produced, but also increased the inflow of capital towards economies like Brazil with high interest and profit rates, which in turn impacts the accumulation of foreign reserves and the exchange rate (see Chapter 5). In Brazil, a large part of the capital inflow has been registered in the capital account as portfolio investment and derivatives, resulting in a high level of exposition of the economy to sudden and abrupt movements of international capital (Marques & Nakatani, 2013, p. 66).

The last strand of literature on financialisation in Brazil discusses the implementation of neoliberal policy in Brazil. It underlines the extent to which, during this process, Brazilian authorities have been compromised by the short-term interests of private financial institutions, as part of which capital losses are absorbed by the state and long-term gains are guaranteed by financial incentives that are part of monetary policies.

In these analyses, the international scenario is left in the background while low growth rates, high inflation and stagnation of the process of accumulation after 1982 in Brazil are stressed. These conditions opened the door for neoliberal reforms favouring financial interests and submitting the state to financial markets' demands (Boito, 2003, 2007, Boito & Berringer, 2013, 2014, Boito & Saad-Filho, 2016, 2016; Mollo & Saad-

Filho, 2006; Novelli, 2011, 2016; Novelli & Galvão, 2001; Paulani, 2008; Saad-Filho, 2003a, 2010, 2012, 2014; Saad-Filho & Maldonado, 1998; Saad-Filho & Morais, 2002, 2004, 2012).

The stabilisation plan in 1994, the inflation targeting regime (IT) in 1999 (see Chapter 5), and the political wiliness of segments and groups inside the country supporting the process of integration regardless of its cost to the national economy are understood as the domestic pillars of financialisation in Brazil. The process of financialisation is generally assumed to be the dominance of finance over policy.

There also is, in this set of literature, a great emphasis on the Brazilian class structure and the alliances between domestic classes, which reflects a shift of class power toward capital in general and financial capital in particular within the country. The inputs from this literature are crucial to understanding how the financialisation process was triggered in Brazil.

In sum, the discussion of financialisation in Brazil occurs through four main strands of literature. The first attempts to map the phenomenon of financialisation encountered in developed economies onto developing countries. This is important, but it must take into consideration the structural differences between Brazil and developed economies. Further, this strand presents studies with similar weaknesses to those discussed in Chapter 4, namely, the treatment of aspects of the financialisation process as a general, and sometimes more significant, feature of the process. The second strand is, in fact, discussing financial globalisation and its impact on the Brazilian economy. It emphasises the rentier logic that emerged in the global economy after the 1970s and the role of the US dollar in this process, followed by the submission of the Brazilian economy to this arrangement. The third strand also starts from the international changes of the 1970s, but from the perspective of the proliferation of fictitious capital in the world economy and how this capital moves to countries like Brazil in search of high yields; it also discusses the impact that this has on Brazil's economic policies. The last strand focuses on the role of the state and social segments in the implementation of reforms that would open the doors and support a financial dominance over economic policy in Brazil, which not only triggered, but also fomented the financialisation process in this country.

6.3. Development of financialisation in Brazil

The brief overview of studies discussing financialisation in Brazil has understated the richness of their contributions. This section explores these contributions while explaining how financialisation takes place and evolves in Brazil.

6.3.1. The international scenario: is financialisation international?

The starting point in Kaltenbrunner (2010), Kaltenbrunner and Painceira (2009), Lapavitsas (2009), and Painceira's (2009, 2012) analyses is the international aspect of financialisation. From this perspective, financialisation is primarily a process occurring within developed countries, which then led these scholars to examine the international aspects of this process and understand how it has affected developing countries such as Brazil.

Financialisation acquires an international aspect largely through liberalised capital flow (Lapavitsas, 2009, p. 10). Moreover, "financial liberalisation is an integral aspect of the financialisation of capitalism more generally" (Painceira, 2009, p. 4). In this light, the beginning of financialisation in developing economies is found in the "financial liberalisation in the 1970s, which lifted price and quantity controls in domestic financial systems." Then, the pull force to continue the process is found in the late 1980s with the WC's financial liberalisation policy based on the integrated pre-market development strategy recommended by international financial intuitions (IFIs), such as the IMF and World Bank (IMF/WB) (Lapavitsas, 2009, p. 10).

Although this perspective makes sense, there is one issue to be clarified. The international aspect of financialisation becomes redundant when contrasted with the financial globalisation literature. The latter literature sees the collapse of the Bretton Woods Agreement as the US regaining control of the international financial system in a context of increasing international competition (especially from Japan and Germany) and the proliferation of private banking activities outside the control of central banks, especially the Federal Reserve (FED) (Tavares, 1997, p. 29). The implementation of floating exchange rates in this context, which increased capital mobility and stirred great speculation with currencies, made it increasingly difficult to keep in place the mechanisms of balance of payment adjustments of the global economy, which then

demanded a set of new fiscal and monetary practices worldwide (Tavares, 1997, p. 34) (see Chapter 4).[238]

Further, from this moment onwards the US dollar would provide instantaneous liquidity, guarantee security in risky operations and serve as unity of virtual wealth for the present and future period. In performing these functions, and considering the strengthening of an unregulated international financial market based on speculation and the profitable field of financial investments already made in the 1960s, the US dollar then became the common denominator for an exponential process of financialisation. This resulted in relevant central banks around the world co-ordinating with the US dollar.

In addition, given the generalised dollarisation of the credit system, the US policy regarding interest and exchange rates meant that changes in international liquidity were placed to service US fiscal policy. By the beginning of the 1980s, the majority of the developed countries were obliged to adopt restrictive fiscal and monetary policies as well as obtain increasing commercial surpluses to compensate the US deficit (Tavares, 1997, pp. 34-35). The financing of the US fiscal deficit resulting from this configuration is clearly seen through the payment of interest and commercial surpluses in Europe and Japan (Tavares, 1997, pp. 39, 42; Tavares & Melin, 1997, p. 76).

In the background of the alignment of fiscal and monetary policies around the world, the policies of financial liberalisation and deregulation were largely the result and part of a broad set of policies implemented under the wave of the neoliberal adjustments begun in the 1970s. These adjustments were implemented systematically, allowing and promoting the increasing internationalisation of capital; this achieved the internationalisation of finance with a US/UK-initiated strategy of macroeconomic stabilisation and liberal policy of deregulation of financial markets at its core. By the 1980s, the enforced coordination of deflationary policy together with further deregulation of the markets imposed by the dollar hegemony was the final determination behind the generalisation of the neoliberal policies (Fiori, 1997, p. 121; Tavares, 1997, p. 35; Tavares & Melin, 1997, pp. 56–57, 74).

For developing economies like Brazil, this process was slightly different, although the end result was the same. The recycling of petrodollars[239] meant the

[238] On the removal of restrictive measures on foreign capital in the 1970s in Brazil and its relationship with the great international liquidity from the petrodollars, see Bacha (1987), Batista (1988) and Carneiro (2014).

replacement of industrial developed governments by banks as lenders to developing countries (Dooley, 2015, p. 263)[240] and the dragging of Latin American countries into the private lending game (Altvater & Hubner, 1991, p. 9).[241] The resolution of the debt crises of these countries and propositions of conditional lending from the IMF were critical to providing legitimacy to market-orientated reforms, restricting the autonomy of nation-states, and integrating debtor states into the global financial system at the same time (Soederberg, 2005, p. 936).

Another critical outcome of the resolution of the debt crises was the securitisation of debt in the late 1980s. The Brady Plan is the prime example: it transformed the debt of these countries into tradable assets, therefore spreading risk across international financial markets (Vasudevan, 2009, p. 297).[242] The international liquidity and deregulation of financial markets in developed economies led to the emergence of market bonds. The dragging of Brazil (as well as developing countries more generally) into this private lending, followed by the Brady Plan, can be considered the beginning of its financialisation.[243]

From this point onwards, these countries would be officially committed to further financial liberalisation reforms and capital inflows (Marx, Echague, & Sandleris, 2006; Painceira, 2009).[244] Additionally, this process placed some of these countries under the demands of the international financial markets and credit rating agencies, adding an extra incentive for them to follow the IFIs' prescriptions. In this light, developing countries, including Brazil, restored their capacity of external indebtedness under the aegis of the volatile financial capital attracted by high interest rates and the

[239] The petrodollar flows were mainly to sovereign borrowers in underdeveloped state-societies based on a set of practices that culminated in the so-called debt crisis of the early 1980s (Langley, 2002, pp. 86–87). Essentially, the private banks, which had become the major lenders in the international scenario, had a substantial gain with this lending activity that was based on two main mechanisms, syndicated credits and floating rate loans. The former enabled many banks to join the game by sharing the risks and the latter enabled banks to adjust the interest rates in the case of inflationary shock, for example (Strange, 1997, pp. 48–49).

[240] This shift had implicit support from national governments (Dooley, 2015, p. 263).

[241] On changes on the forms of financing in developing countries in the context of the financial deregulation and liberalisation of the 1980s, see Altvater and Hubner (1991), Soederberg (2005) and Strange (1997).

[242] The idea was to minimise the risk exposure, ideally for both creditors and borrowers, by implementing mechanisms such as debt-equity swaps. "The Brady plan implicitly accepted that Latin America would never be able to repay its debts to commercial banks in the short term by increasing net exports, so that it would have to borrow in private international capital markets to do so" (Kregel, 2000, p. 3).

[243] See also Painceira (2009), p. 6.

[244] "[L]iberalising of the capital account was one of the main conditions of the Brady Plan that restructured the external debt of several developing countries in the early 1990s (mostly in Latin America)" (Painceira, 2009, pp. 5–6)

search for speculative and financial gains (Tavares & Melin, 1997, p. 78).[245]

From this perspective, the dollar hegemony is inseparable from financial globalisation, as it implied the process of fiscal and monetary policy alignment that started in the 1980s, especially when the financial systems of domestic economies become internationalised. More importantly, both the dollar hegemony and financial globalisation are inseparable from financialisation. Thus, the idea that financialisation is primarily a process occurring within developed countries, which is then followed by its international aspect does not make much sense.

Financialisation started in countries (specifically the US) where the banking and financial systems (especially capital markets) are developed, but the process has always been international. The new components in the floating exchange regime in 1974 (such as liberalisation of capital) created a fertile ground for foreign exchange trading, risk hedging and speculation across the globe (McNally, 2009, pp. 57–58).

This was followed by the significant growth in cross-border flows resulting from post-Bretton Woods' deregulation; the global labour restructuring that comes with the process of financialisation (Harvey, 2005; McNally, 2009); and mergers and acquisitions witnessed in the 1960s and 1980s, which can be summarised as a renewal of the global competition after the war, due in large part to the recovery of Japan and Germany, and the growth of East Asian economies and new multinational corporations ranging from Brazil to Malaysia (Brenner, 1998).

From a more general perspective, the point here is that capital has a tendency "to internationalize and constitute a world market for its valorization" (Albo, 2003, p. 90). This has been led by the US and its policy for external markets (Panitch & Gindin, 2012), and developing countries always have been part of this process. Thus, if financialisation is, as discussed in Chapter 4, a tendency towards the autonomisation of abstract wealth which reaches its most advanced stage with the formation of fictitious capital, it is prone to happen in circuits of capital wherever they are and cannot be dissociated from the process of internationalisation of capital itself.

By the same token, the tendency towards financialisation does need institutional reforms and state support, but these reforms do not necessarily relate mainly to financial and trade opening. An example of this was Brazil during the 1980s presenting a

[245] The Latin American countries represent a clearer example of subordinate insertion into the global financial markets, with visible losses in terms of competitiveness, deindustrialisation and increasing dependency on external capital to avoid an exchange rate debacle. Chile is an exemption. The Asian countries had a slightly different experience, as a result of US competition with Japan (see Medeiros, 1997; Tavares & Melin, 1997, p. 78).

particular type of financialisation (Bruno et al., 2011; Casa, 2008) regardless of the process of capital liberalisation.[246] The scenario of high inflation caused the Brazilian government bonds market to be characterised with a distinctive form of bond indexation based on the overnight daily rollover rate (SELIC) and short-term maturity. These bonds were not affected by inflation due to a mechanism of monetary correction that protected them against the devaluation it caused. The Brazilian Central Bank (BCB) allowed financial institutions to swap these bonds for currency on demand, which substantially reduced the cost of banks' compulsory reserves. This represented the assurance of liquidity from the Treasury and the BCB's bonds to the financial institutions, which guaranteed the stability of the domestic financial system and created additional demand for government bonds (Saad-Filho & Mollo, 2002, p. 122).

In the late 1980s, several banks used this opportunity to offer index-linked current accounts to their high-income customers. Money invested in this account earned a share of the nominal interest paid on the government bonds, which could be anything up to 40 percent per month, depending on the rate of inflation. In addition to these interest payments, the deposits were available on demand because of the central bank liquidity guaranteed to these banks (Bruno et al., 2011; Casa, 2008; Kregel, 2000). These accounts were equivalent to the creation of a parallel currency whose value increased daily because of the real interest paid on the government bonds. This avoided the "threat of flight from currency to commodities (hyperinflation) or into other reserves assets (dollarization)". However, paradoxically, contractionary policies increased the disposable income of the wealthier sections of the society (Saad-Filho & Mollo, 2002, p. 122). Bruno et al. (2011) argue on the existence of financialisation caused by inflation in this period, based on an empirical study showing that from the mid-1970s onwards, the higher inflation was, the larger the participation in and gains of the financial system in the total added value of the economy.

In sum, when examining financialisation in Brazil the issue is to understand the form through which the Brazilian economy is integrated with this process that started being more directly fomented by the worldwide policies and changes in the 1970s. This is not specifically about financial liberalisation – NFCs engaging in financial activities, the rise of individual indebtedness, de-industrialisation and so forth. It is about how the Brazilian government followed these international tendencies, given the particularities

[246] The 1980s in Brazil was marked by flexible exchange rates preserving export competiveness, and interest rates had no impact on capital flows; this is known as the period in which capital flows were negative (Kregel, 2000).

and structure of the country's economy. The key issue is how and where the trade with fictitious capital finds its way into this economy with the support of the state. This view helps to move away from both an understanding of financialisation in a piecemeal fashion and/or an understanding of financialisation that quite often highlights the submission or constraint that financial liberalisation imposes on the Brazilian economy.

6.3.2. Financialisation: domestic aspects[247]

There is a gap between financialisation rising from the outcomes of the reforms and changes in the 1970s and when these reforms reached developing economies. This gap is due to their different positions in the international circuit of capital and in the world market and institutional, historical and political specificities. It was only after two decades of the internationalisation of finance that these transformations were more directly and systematically pursued in developing countries, especially in the so-called emerging economies, including the ex-socialist countries (Fiori, 1997, p. 91). Thus, it was not until the beginning of the 1990s that developing countries were more directly integrated into the financialisation process. Regardless of the specificities of each, their status shifted from countries in development to emerging economies, i.e., their economies were integrated into deregulated and global finance (Fiori, 1997, p. 121). By this time, the original 1960s neoliberal ideas had grown into a more coherent set of policies under the WC prescriptions, which then had turned into the post-WC.

The WC and its policies were met with two favourable conditions in Brazil. Firstly, as mentioned above, the recycling of the petrodollar and the debt crisis, especially in Latin American countries, initiated reforms and changes that started paving the way for the process of financialisation in these countries. Secondly, at the end of the 1980s, Brazil was urgently trying to control its public finances and inflation, and, at the same time, recover economic growth. These were problems basically attributed to the exhaustion of the developmentist model (import-substitution industrialisation – ISI) (see Chapter 5) and these conditions would facilitate the shift towards a new model of development.

The set of policies that came with the WC is related to a much broader discussion on economic development which believes in the efficiency of the financial sector to deliver economic growth. In this sense, since its elaboration, the WC had a

[247] As it is beyond the scope of this thesis to discuss the pros and cons of this process in Brazil, this section mainly aims to expose the channels through which financialisation takes place in the Brazilian economy.

great influence from modern neoclassical theory of development economics, with the market efficiency versus state inefficiency dispute in the background (Saad-Filho, 2011, pp. 324–25). The 1980s and 1990s witnessed the idea of growth regime attached to the concept of financial deepening, which were implemented in emerging economies under several metamorphoses of the WC (see Chapter 2).[248]

The way in which these reforms continued to pave the way for financialisation should be understood at the theoretical level, which makes clear the weight the IFIs' assumptions had in this process in Brazil, and, at the practical level, the role of the state in driving this process. Regarding the first, the WC design incentivised and fomented the development of finance due to influences from the conventional argument against financial repression in developing countries — seen to be a key impediment to development (McKinnon, 1973; Shaw, 1973). Initially, financial repression was related to any constraints that limit the efficient functioning of the domestic financial market. In the 1970s, the aim of financial liberalisation was to lift constraints on financial activities in order to facilitate the flow of domestic savings to investment, but gradually the concept was also extended to legal restrictions on international financial capital. Thus, the concern with opening the capital account of the balance of payments came later, which then would contribute to the growth of international capital flows.

Figure 6.1 shows this increase of capital flow together with changes in foreign reserves accumulation and current account balance for emerging and developing economies. Unsurprisingly, since the turn of the century, there has been a substantial increase in net private inflows towards emerging and developing economies,[249] from around 100 to over 500 US$ billions between 2002 and 2007.

[248] For a critical appraisal of the WC see Fine, Lapavitsas and Pincus (2003) and Jomo and Fine (2006).
[249] International capital flows, especially after the crises at the end of 1990s, have mainly been in the form of FDI (IMF, 2008). This shows that the global productivity capacity has shifted to developing countries, which explains the recurrent current account surplus in these countries during the 2000s (Lapavitsas, 2009c, p. 12; Painceira, 2009, p. 11). This is also an aspect of financialisation and shows that it occurs together with the expansion and development of production. However, the analysis of financialisation and global accumulation of capital is not directly addressed in this thesis.

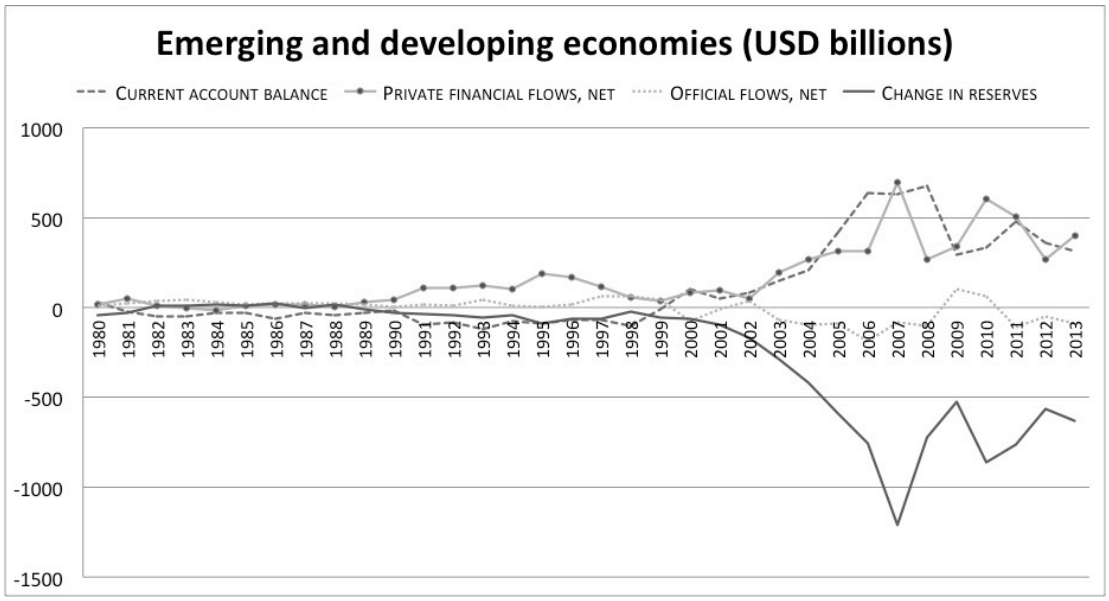

Figure 6.1: Growth in international capital flows (US dollar billions) - Emerging economies
Source: author's calculation based on the World Bank (2015)

By the 1990s and 2000s, liberalisation of the economy and of capital accounts started being considered key to remove financial repression (Painceira, 2009, p. 6) and the opening of national economies to international financial markets became a fundamental element of financial liberalisation. This would "denote greater ease and flexibility for domestic residents to take positions in assets and liabilities denominated in foreign currency, as well for non-domestic residents to operate in domestic financial markets" (Painceira, 2009, p. 5).

After the mixed success of the actual experiences with liberalisation (Dornbusch & Reynoso, 1989) and critiques of the mechanics of financial markets (Stiglitz, 1994, 2000), approaches within this tradition focused on the idea of financial development and access to finance (Beck, Demirgüç-Kunt, & Levine, 2007; Dehejia & Gatti, 2005; Honohan, 2004; King & Levine, 1993; Levine, 1997; Pagano, 1993). Broadly speaking, these approaches assume the efficiency of the allocation of credit through market mechanisms, argue that financial intermediaries contribute to investment and technological development, and assert that developed financial markets minimise transaction costs and are effective in preventing information asymmetries.[250]

In more general terms, the WC pro-market development strategy encouraged developing countries to move away "from bank-based, relational, government-

[250] This argument is supported by the assumption that investment decisions are subject to rational criteria of the markets. Minimisation of informational asymmetries is crucial for efficient market rationality in which the mobilisation of savings is achieved in an efficient manner by the help of financial intermediaries (Prasad, Rogoff, Wei, & Kose, 2003).

controlled toward market based, arms length, private institutions and mechanisms" (Lapavitsas, 2009, p. 10).[251] This set of policies had a critical role in finally changing the sovereign credit practices.[252]

The idea of financial deepening and access to finance was also largely based on the development of the government bond market. In Brazil, this development was more directly pursued after 2001 when the country joined the World Bank Group's *Government Bond Market Development Program* (Eichengreen, 2008b, 2008a; Raghavan & Silva, 2015; Wheeler, 2004) and, in more specific terms, started following the IMF and World Bank's (2014) *Guidelines for Public Debt Management*.

As discussed in Chapter Two, the *Guidelines*' main goal is to minimise long-term financing costs and ensure that risks are kept at prudent levels through improving the government bond market liquidity. In short, according to this view, liquidity is a sign of a mature government bond market and brings additional benefits, such as the development of other financial market segments due to the creation of a benchmark yield curve in the pricing and trading of other financial assets. In addition, it facilitates the conduct of monetary policy, since liquid asset markets are required in order to conduct open market operations (OMOs) and avoid financial instability. Thus, the development of government bond markets in developing economies is encouraged as they are considered the cornerstone of financial markets (see Chapter 2).

Regarding the second point, i.e., the practical level, reforms implemented in Brazil following the WC aimed at opening the way to the market addressing problems of development. The exchange rate regime gradually started being flexibilised in 1989, and after 1990 restrictions on imports were progressively abolished. The balance of payments shifted from surplus to deficit and Brazil started importing capital (Paulani, 2008). Developing sectorial polices were abandoned, and the state started liberalising and deregulating the economy.[253] Contractionary deflationary monetary policies were

[251] The debate over the relationship between financial and economic development has come a long way since McKinnon's (1973) and Shaw's (1973) works, but the belief that the development of finance is critical to achieving economic growth remains central. The point about financial liberalisation within this debate, however, is relatively erratic, although no significant changes are witnessed. In the 1980s, the IMF was preoccupied with liberalisation aiming at the exchange of capital (Chwieroth, 2010). This goal gained ground in the 1990s, but the financial crises in 1997 and 1998 led to a weakening of this proposal within the IMF (Abdelal, 2006). However, the IMF's perspective did not experience major changes and the belief in liberalisation remained solid, as "rather than implicating capital account openness per se as responsible for the crisis, prevailing beliefs led the [IMF] staff to identify 'disorderly liberalization' as a principal culprit" (Chwieroth, 2010, p. 187).

[252] Silva and Raghavan (2015), for example, state that domestic capital markets have become a major source of financing for emergent market economies "where around 85 percent of government debt outstanding is in the domestic market" (p. 3).

[253] The new strategy encouraged integration between stated-owned companies and multinational

implemented in order to control demand and inflation and to attract foreign capital (Mollo & Saad-Filho, 2006, pp. 100–101).

At a more general level, monetary policy changed, following the international tendency, and focused on price stabilisation based on the use of interest rates as the most important economic policy tool. Fiscal policy became restrictive and foreign reserve accumulation sparked (de Paula, 2011) (see Chapter 5). It was also at this moment that Brazil began refinancing its existing external debt on terms determined in open markets, i.e., the Brady Plan, which is more favourable to private capital. The Plan's prerequisite of the liberalisation of the capital account would then definitely open the Brazilian economy to international financial flows (Painceira, 2009, p. 5).

The withdrawal of the state in this context meant a systematic and strong intervention to promote the integration of Brazil into the global economy through the integration of domestic capital into transnational circuits and a decisive role for finance in economic policy-making (Boito, 2003; de Paula, 2011; Mollo & Saad-Filho, 2006; Novelli & Galvão, 2001; Paulani, 2008; Saad-Filho, 2011). The only issue still not quite solved in this scenario was inflation. The Real stabilisation plan in 1994 (see Chapter 5) would reinforce and complement these reforms, including a much more intense process of financial deepening, liberalisation of the economy, and internationalisation.[254]

Channels through which the process of financialisation has taken place in the context can be seen on several fronts. For example, the integration between state-owned companies and multinational corporations, which was closely associated with privatisations,[255] led to mergers, partnerships and acquisitions. This process increased the entry of foreign capital, more precisely FDI. Additionally, it expanded and developed the Brazilian capital market, giving room for the expansion of fictitious

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corporations based on the idea that global/external competition would lead to mergers, partnerships and acquisitions, or the collapse of firms that were considered inefficient. This process, in turn, would increase the average productivity of the economy. Commercial opening and integration were also seen as necessary to force domestic industries to invest in new technologies, which would then lead to economic growth and more employment. From a different angle, commercial opening and integration were also seen as necessary to reduce the market power of oligopolies and trade unions, and, at the same time, expand the supply of consumer goods and investment, which would in turn increase productivity and contribute to decreasing inflation. The deregulation of the labour market was also seen as necessary due to the loss of competitiveness of national sectors. This problem could only be solved, according to this new accumulation regime, by the flexibilisation of the labour market and technological modernisation – that is, via a reduction in production costs based on the flexibilisation of the labour market and foreign firms' entry.

[254] For an overview of the main measures and laws related to the financial deepening in Brazil followed by an evaluation of the process from 1996 and 2006, see Hermann (2010).

[255] Privatisation of state-owned companies was promoted under the justification of inefficiency, but the privatisation programme was also seen as part of the policies aimed at public deficit control, as discussed in Chapter 5. For more on privatisation in Brazil see Gonçalves (1999).

capital in the form of equities. The Brazilian Mercantile and Futures Exchange (BM&FBovespa)[256] stock market index boosted from 100 in July 1992 to 4,459 in 1997. The market value of joint-stock companies in the same period rose from US$ 50.7 billion to US$ 316.6 billion (Nakatani, 2000, p. 227). Analyses of the Brazilian finance-led regime in the 2000s (Bruno et al., 2011; Paulani, 2010) have their origins in these changes.

A point to highlight here is that in 1995 the FDI distribution was 66.9 percent industry, 30.9 percent service and 2.2 percent agriculture, livestock and extractive industries. By the beginning of 2010 this division had changed to 44.5 percent service, 39.9 percent industry and 16 percent agriculture, livestock and extractive industries. Within the service sector, financial services had become the largest receptor of FDI (16.9 percent), followed by telecommunications (7 percent) (Marques & Nakatani, 2013, pp. 73–74). This shows the large increase in foreign takeovers of Brazilian firms (banking, manufacturing and mineral extractive industry), and privatisation of state-owned enterprises, such as telecommunications, which triggered a round of concentration and centralisation of capital, especially through a wave of bankruptcies and mergers (Saad-Filho & Mollo, 2002, p. 127).

A second channel – also linked to the deregulation of the domestic financial market in order to facilitate the entry of foreign capital to provide resources to finance the public and private sector – relates to the increase in foreign portfolio investment (FPI). Between 1991, when the National Monetary Council, via Resolution 1.832, allowed foreign capital to be invested in the BM&FBovespa, and 2011, the net volume of FPI increased to 384.6 percent (Marques & Nakatani, 2013, p. 74). This type of capital in Brazil has the particular feature of being volatile. Thus, the increase in FPI means not only increasing investment in long-term fixed income securities, but also (and mainly) an increase in transactions of a speculative character in the secondary market.

Bruno (2009) argues that by the second half of the 2000s, during the so-called developmentalist period (see Chapter 5), the allegedly positive picture of the Brazilian capital market did not reflect an increase in investment in the productive sector by the private sector. Only 30-40 percent of existing investments in this market were directed to production; the majority were allocated to financial investment, especially government bonds, with no prospect of being allocated to the productive sectors. There

[256] In 2008, the BM&F merged with the old Brazilian stock exchange BOVESPA.

was, therefore, no prospect of sustained economic growth (para 8). As a consequence, for Bruno, even with a secure capital market fulfilling the criteria of credit rating agencies and constantly attracting foreign investments (considered a determinant factor for supporting development), Brazil was unable to establish a plan for economic growth (para 6).

The growth in the US$ volume traded in the BM&FBovespa was not only supported by changes in the banking system regarding centralisation and internationalisation of the banks, but also the creation of multiple banks[257] and new financial instruments (Nakatani, 2000, p. 230). Further, the augmentation of trade with financial assets was supported by government measures such as exemption from income tax on remittance of profits and dividends abroad; deduction of interest on the equity of the company's own capital from the taxable profit of income tax and from the social contribution on net income (Law no. 9.249/95); reduction of the rate of income tax to zero for foreign investors in Brazilian banks (MP n. 281 of 15.02.2006); and implementation of Constitutional Amendment number 37, which exempts the CMPF – Tax on Bank Account Transaction (repealed in 2007) – on operations on the Stock Exchange (Granemann, 2006; Paulani and Pato, 2005; Sicsú, 2007).

At a more general level, since the 1990s Brazil's financial system has become much closer to global finance due to mergers, privatisations and institutional and regulatory reforms. Most of the Brazilian financial system was privatised, state-owned commercial banks were legally required to operate under market rules and, especially after the gradual liberalisation of foreign currency deposits and the capital account of the balance of payments, the private financial system increased its control over foreign resources (de Freitas & Prates, 2001; Studart & Hermann, 2001). Without a shadow of a doubt these reforms strengthened the Brazilian financial system, but they also extended the power of finance over policies, resulting in it addressing private rather than public concerns (Morais & Saad-Filho, 2005, pp. 13–14).

This gives space to discuss a third channel through which financialisation manifest in Brazil. The changes above are understood to have laid the foundation for the development practices found in financialised developed countries, in particular lending to individuals for mortgages and consumption; these have resulted in rising levels of individual indebtedness in Brazil, as argued by dos Santos (2011, 2013). The financial

[257] Multiple banks are private or public financial institutions that carry out active, passive and accessory operations of the various financial institutions through the following portfolios: commercial, investment and/or development, real estate credit, leasing and credit, financing and investment (Banco Central do Brasil, 2016b).

system's control of domestic credit and foreign capital is also understood to be behind the phenomenon examined by Kaltenbrunner (2010, 2015).

Kaltenbrunner presents evidence of increasing trade with short-term domestic Brazilian assets, which is related to the "importance of trading as an income-generating and risk-diversification device" (Kaltenbrunner, 2010, p. 297). This type of trade in Brazil has led to both an increasing participation of foreign investors in short-term domestic assets and an increasing use of the national currency as an international portfolio asset. The driver behind this trade is related to the extent to which the Brazilian financial market has offered a solid structure for the "use of domestic currency by international investors for hedging purposes and, especially, speculative purposes" (Kaltenbrunner, 2010, p. 300).

The increasing importance of this trade "makes the liquidity of financial markets and assets a prime concern for investors". As a result, the Brazilian government feels compelled to provide this liquidity,[258] as these international investors have a big influence on the domestic currency, weakening the Brazilian exchange rate management and substantially contributing to exchange rate volatility, especially during the financial crisis (Kaltenbrunner, 2010, pp. 297-298).

The shift towards financial investments and transactions is also seen through the easy access to international financial markets giving room for arbitrage opportunities, either via high interest rates or exchange rate fluctuation, which can also be understood as another channel through which financialisation takes place in Brazil. These transactions are very close to the phenomenon examined by Kaltenbrunner. In the first case (high interest rates), Brazilian non-financial and financial institutions borrow heavily abroad in order to obtain cheap funds to invest in higher return investments within the country, especially in government bonds (arbitrage operations).

In the second case, derivative contracts are used for speculative purposes based on arbitrage operations between the Real and foreign currencies (carry trade operations) (Prates, 2015; Prates, Farhi, & Marçal, 2006).[259] This speculative practice is mainly

[258] This was exactly what happened in Brazil after 2003, according to Kaltenbrunner (2010). The Brazilian government provided liquidity to international investors and, as a result, Brazilian assets have become an integral component of the international trading arena (p. 297). The Brazilian Real became one of the most widely traded emerging-market currencies. As a result, during the 2007-8 financial crisis, due to the rapid international portfolio adjustment, the Brazilian Real depreciated sharply, independently of the huge accumulation of foreign reserves and "sound macroeconomic fundamentals" (p. 298).

[259] In carry trade operations, the purchase of assumed riskier and higher-yielding currencies is funded by selling lower-yielding currencies, and there is no hedging of foreign exchange risk. This is the main difference from arbitrage operations; arbitrage operations are covered interest arbitrage while carry trades

based on investing in the Brazilian Real, more precisely in domestic capital assets, such as domestic public and private bonds, stocks, real estate and other securities and derivatives instruments, to benefit from differential interest rates between the Real and other currencies (Dodd & Griffith-Jones, 2007, p. 46; Painceira, 2009, p. 18).[260] They offer larger profits than transactions in the spot market as they are highly leveraged, and, because of them, "reportedly the market in *reals* outside Brazil is larger than in Brazil" (Dodd & Griffith-Jones, 2007, p. 45).[261]

Increases in the interest rate between September 2004 and September 2005 directly and positively affected the exchange rate derivatives, which led to foreign and domestic institutional investors to buy Real derivatives both in Brazil and off-shore, although it was foreign institutional investors who dominated these purchases (Prates, 2015, p. 81).[262] This meant an increasing selling of US$ forwards by foreign institutional investors, especially hedge funds and investment banks.[263] Particularly after the mid-2000s, the carry trade operations have affected the movement of international capital flows towards Brazil and prevented this country from reducing short-term borrowing (Paniceira, 2009, p. 18). By the second half of 2006, the BCB started to intervene in this market on a daily basis.

One final channel showing how financialisation takes place in Brazil is the expansion of the government bonds market. If the solution to the 1980s crisis and the Brady Plan contributed to government debt shifting from contractual to bond (as the data in Chapter 5 shows), the Real plan would then enhance this change providing

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are uncovered interest arbitrage. For more details see Moffett, Stonehill and Eiteman (2013) and Moosa (2003).

[260] The policy of foreign reserve accumulation more fiercely pursued after 2006 in Brazil would offer the ideal channel for financial investors to perform carry trade operations (Painceira, 2009, p. 18).

[261] Dodd and Griffith-Jones' (2007) study conducted interviews with market actors in Brazil in which was revealed, for example, a significant speculative demand for Real from Asian and European banks, although transactions are channelled through New York and Chile. Investors are borrowing currencies at low interest rates (for example yen and Chilean pesos) to invest via derivatives in the Real at high interest rates (p. 46). These operations are also pursued at the domestic level. During the commodity boom, large exporting firms also engaged in highly speculative foreign exchange derivatives contracts, in which they bet heavily on the continuing appreciation of the Brazilian currency without proper hedging. The 2007-8 crisis and subsequent devaluation of the Real caused large capital losses to these exporters – in several cases threatening their solvency. The government had no choice but to intervene offering/facilitating them credit, because these firms were major players in Brazil's balance of payments (Barbosa & de Souza, 2010, p. 24).

[262] The demand and supply of Real futures, especially domestically, is not limited to institutional investors; when there is pressure for the Real to depreciate only importers hedge; this happened in Brazil until 2004. When appreciation pressure for the Real began, it is the exporters who hedged, as has been happening since 2005 (Dodd & Griffith-Jones, 2007, p. 46).

[263] Dodd and Griffith-Jones (2007), Prates (2015) and Prates et al. (2006) argue that this increase, especially from off-shore transactions (which are not registered at the BM&FBovespa), kept pressuring the Real upwards, which, according to Dodd and Griffith-Jones' (2007) study, led to arbitrage transactions as well (p. 36).

grounds for a demand for Real-dominated bonds due to the stabilisation of the currency. This would help to spur the development of the Brazilian government bond market, which had been envisaged since the military government in 1964; however, as discussed in Chapter 5, the plan was not enough to change both the short-term maturity and SELIC indexed features of these bonds.

This development also had the support of the IMF/WB's *Guidelines* mentioned above. Following the *Guidelines*, the Brazilian Treasury and the BCB have since 1999 introduced a host of measures, aimed at improving the liquidity of federal government debt.[264] Silva, Garrido and Carvalho (2010) argue that the Brazilian market for government bonds "has become one of the most liquid among all emerging economies," which is understood to be the result of "a series of measures to develop the yield curve, improve market liquidity, and expand the investor base" (p. 249). The measures focus on investors' perception of Brazilian sovereign risk and on implementing more restrictive views on fiscal policy. The latter resulted in, for example, the establishment of the Annual Borrowing Plan (ABP) in 2001, the Fiscal Stability Programme (FSP) and, in 2000, the Fiscal Responsibility Law (FRL) (Rocha, 2010, pp. 117–118).

The proliferation of government bonds was explained in the previous chapter through the increase of the domestic public debt (DPD), i.e, the debt circulating in the domestic market in Real-denominated bonds. In the second half of the 1990s, the DPD increased in real terms at an average of 24.8 percent a year (Pedras, 2010, p. 55). In 2014, it reached 51.5 percent of the GDP (Secretaria do Tesouro Nacional, 2016a). BIS (2014) lists the Brazilian government bond market among the ten largest in the world in US$ billion; it is also the largest in Latin America (Amante, Araujo, & Jeanneau, 2007, p. 69).

The measures above and the significant increasing issuance of government bonds in the last two decades led Nakatani (2006) to argue that in Brazil the DPD has become the privileged and main cog through which fictitious capital expands (p. 10). A similar argument is made by Araújo et al. (2012), Bruno and Caffé (2015), Marques and Nakatani (2013), Medialdea (2013) and Trindade (2012). These scholars not only documented the flows of capital towards investment government bonds in Brazil, but also highlighted how government bonds have been concentrated in large financial institutions, such as banks, pension and investment funds and insurance companies, as these bonds offer high yields, high liquidity and safety.

[264] For a detailed account of these measures in Brazil see Andima (2006), and Silva, Garrido and Carvalho (2010).

In sum, the process of liberalisation and financial deepening is still ongoing in Brazil; and, rather than suffering setbacks after the financial crises in the 1990s, the process has only intensified (Hermann, 2010, p. 280). This has meant the building of an institutional structure that has allowed and encouraged the proliferation and creation of new forms of fictitious capital through different channels in the economy, and an expressive increase in government bonds through the reformulation of the state-finance nexus. This last point deserves further attention for two main reasons. Firstly, the increase occurs within the context of continuous primary surpluses achievements (see Chapter 5). Secondly, the link between government bonds and financial markets given by the public debt management literature is not sufficient to explain how and why the Brazilian state has been able to foment and, at the same time, afford the financialisation process. The next section explores these issues further.

6.4. Government bonds as the core of the process of financialisation in Brazil

The question of development in Brazil has always been linked to how its economy is integrated in the international circuit of capital, which is discussed in the vast literature, by dependency and structuralist theorists, on the development of the underdeveloped (Cardoso & Faletto, 1979; de Mello, 1997; Furtado, 1970; Prebisch, 1963; Tavares, 1985). However, the scenario that emerged with the collapse of Bretton Woods is significantly different, as the US dollar hegemony evolved together with the development of international financial markets, the trade in financial assets across continents and the increase in financial speculative operations, foreign exchange trading and risk hedging. In this context, the internationalisation of the circuit of capital cannot be seen as separate from financialisation, implications of the hegemony of the US dollar as world money, introduction of liberalised exchange rates, and implementation of broad-based financial liberalisation.

The WC and its strategy to achieve economic growth had two main consequences in Brazil. Firstly, it implemented changes that favoured the increasing trade in and formation of fictitious capital, which triggered the process of financialisation in this country (see previous section). Secondly, it led to a reconfiguration of the state and its policies from the perspective of how to deal not only with financial crises and instability resulting from financialisation, but also with financial innovations and new financial instruments that allowed investors to broaden

their investment base to the extent that even financial instability could provide profitable fields of investment for many of them.[265]

This second aspect not only refers to the reformulation of the state-finance nexus as broadly put by the literature above, but also to the financialisation of the Brazilian state – how it has engaged with financialised practices in order to manage the contradictory demands of growth, stability and income distribution that emerged in the context of financialisation. As a result, the economic policies that emerged with the transformation of the 1990s are both the result of reforms that aimed at transforming Brazil into an emerging economy with a modern and globally integrated financial system and a channel through which the Brazilian state ends up deepening the financialisation process.

One of the first aspects showing this relates to sterilisation policies. Chapter 5 explained how the monetary arrangement in Brazil needs sterilisation policies to avoid an inflationary process that may occur due to the expansion of the monetary base resulting from the purchase of reserves in the foreign exchange market to keep the currency stable. Given the context above, there are a few points to be added to this explanation.

Attracting capital flows followed by high interest rates is a main pillar of the development model Brazil follows. However, this is not all. Within a deregulated and integrated economy, capital inflow is also related to demand for world money. The access to international financial markets due to the liberalisation of capital markets makes the use and holding of world money appealing for all kind of ventures, from both financial and non-financial institutions. Hardie (2012), Kaltenbrunner (2010) and Painceira (2009) show how, more often than not, corporations accessing international markets are looking to exploit the interest rate differential and enjoy a substantial advantage over those confined to domestic funds in Brazil.

In this sense, the need for a sterilisation policy is not directly related only to a development model based on foreign savings; nor is its resulting burden on the public sector debt only a consequence of high interest rates. Its use is, above all, related to an international monetary system that revolves around fluctuating exchange rates and the

[265] Datz (2008) argues that the value of the investor portfolio is not related to the wealth and macroeconomic variables of the country in the same manner as it was decades ago, as investors can profit in any scenario due to financial innovation and new financial instruments (p. 87). This is what happened in Brazil during the exchange rate crisis in 1999, with the support of the state (see below). Other cases also occurred, for example, in the 2007-8 financial crisis when Goldman Sachs profited from its CDS betting on the collapse of the mortgage market, and during the 2010-11 Greek crisis when financial investors bet on the Greek default.

US dollar's power over international monetary affairs – a system that has, since the 1970s, given room for profitable financial, speculative and hedging investments. In this light, the policy of sterilisation is not a matter of choice for developing countries such as Brazil, especially in the context of inflation targeting. This represents one of the changes in the BCB management within a context of financialisation and relies on the use of government bonds.

There are two implications here. One is the increase in the Brazilian DPD, but not in order to engage in investment or cover public deficits. In this sense, the process of financial deepening, together with the development of the government bond markets to conduct monetary policy, has meant increasing levels of public indebtedness in Brazil, which then increase the financial fragility of the public sector.

The second is that in Brazil nowadays, sterilisation policy basically refers to the government offering short-term domestic currency bonds in the form of repurchase agreements (repos) to be transacted with banks. Repos/reverse repos, whose maturity varies between 1-180 days, have been the BCB's principal operating tool for monetary policy (Banco Central do Brasil, 2015a, p. 16) (Figure 6.2) (see below). This reinforces not only the high interest cycle, as discussed in Chapter 5, but the proliferation of titles of fictitious capital via public debt.

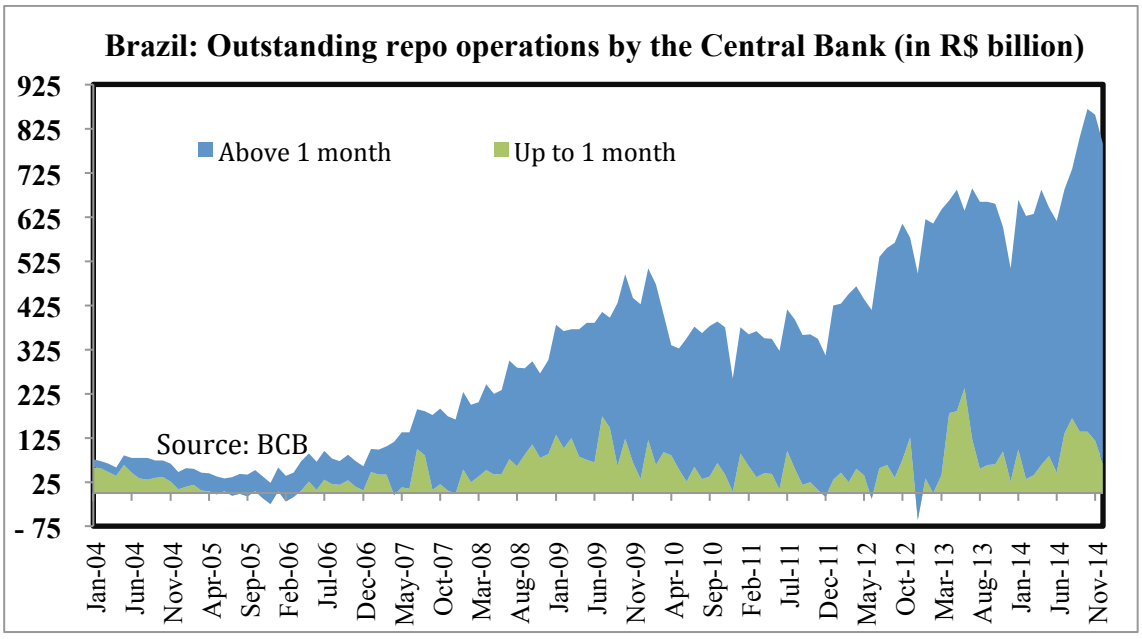

Figure 6.2: Brazil Outstanding repo operations by the Central Bank (in R$ billions)
(Banco Central do Brasil, 2016a)

The scenario brought about by floating exchange rates and the dollar hegemony has also led to a worldwide practice of accumulation of foreign reserves,[266] especially after the financial crisis at the end at the 1990s (see Chapter 4). In 2006, Brazil officially adopted the accumulation of foreign reserve policy. By mid-2008 these reserves had grown from 4,5 percent of the GDP in 2000 to 14,6 percent (Banco Central do Brasil, 2016a). Figure 6.3 shows the evolution of the reserves from 1995 to 2014.

Foreign reserves are held by the BCB and contain various types of deposits and securities (especially US Treasure securities),[267] gold, repurchase agreements and derivatives. The source of these reserves can be current account surpluses or private capitals flows (Painceira, 2009, p. 12). The latter case, is called by Painceira (2010) 'borrowed' reserves, as it results from "short-term flows of the capital account rather than current account transactions such as trade balance" (p. 282).

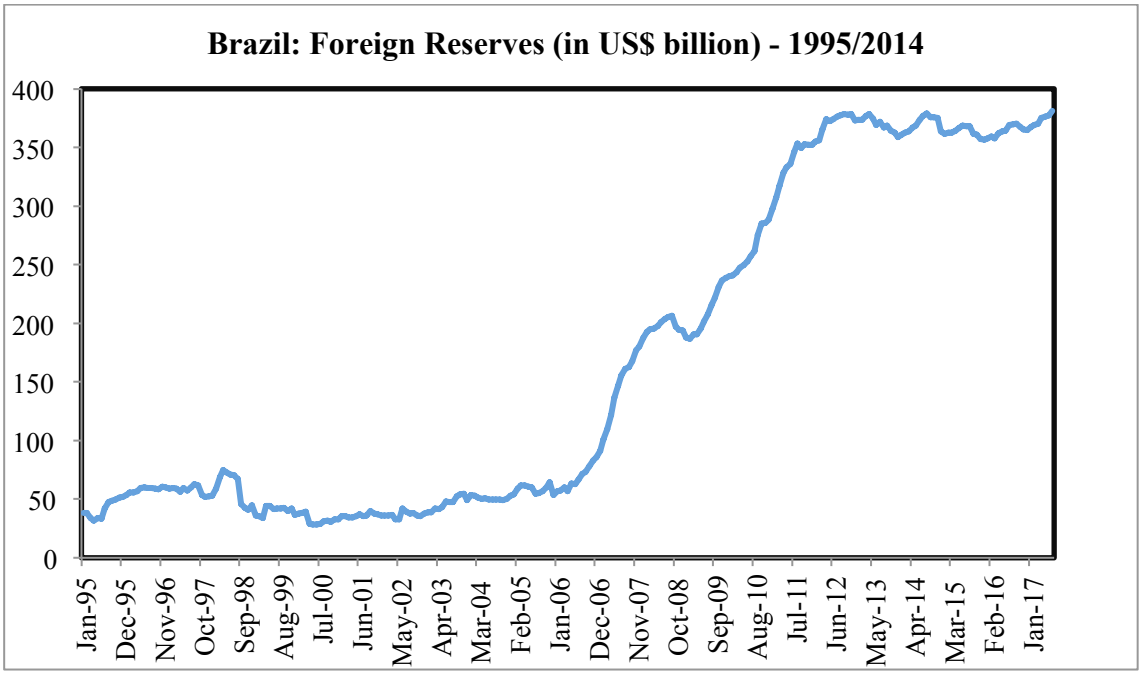

Figure 6.3: Brazil Foreign Reserves (in US$ billion) 1995 - 2014
(Banco Central do Brasil, 2016a)

The policy of accumulation of foreign reserves implies a relationship with sterilisation policy and the associated public debt. Foreign reserves are bought in the foreign exchange market by the BCB and are financed through the issuance of money or

[266] In the case of Brazil Hermann (2002) argues that the use foreign reserve to contain the tendency to devaluation has led the floating regime to lose its function of stabilising the balance of payments (p. 16).
[267] In December 2013, the allocation of reserves in Brazil was: 79,7 percent in US dollar; 6,0 percent in Canadian dollar; 4,5 percent in Euro; 3,1 percent in pound sterling; 2,7 in Australian dollar; 1,3 percent in Yen; 0,7 percent in gold; 2,0 percent in other currencies (Banco Central do Brasil, 2015b, p. 15).

government bonds, since the issuance is not inflationary in the first case or the BCB portfolio does not fall below the monetary policy needs in the second case.

Especially since 2006, the purchase of foreign reserves has been mainly financed by repo operations (Figure 6.2 above). That is, the BCB sells government bonds from its portfolio with the compromise to buy these titles back given a certain timeframe that is often very short (Instituição Fiscal Independente, 2017, p. 5). This type of debt differs from the debt that is issued to support government spending or cover interest payments. It is a debt that is issued – or is it circulated – to maintain stability in the markets.

The use of repo operations should be contextualised within a two parts operation. When the BCB buys foreign reserves, whether borrowed reserves or directly selling domestic currency to foreign holders, it increases the monetary base (Figure 6.4), pressuring the interest rates down, which is a problem especially within an IT regime. The BCB then sterilises this injection of liquidity in the economy through the sale of government bonds from its own portfolio or new issuance of government bonds.

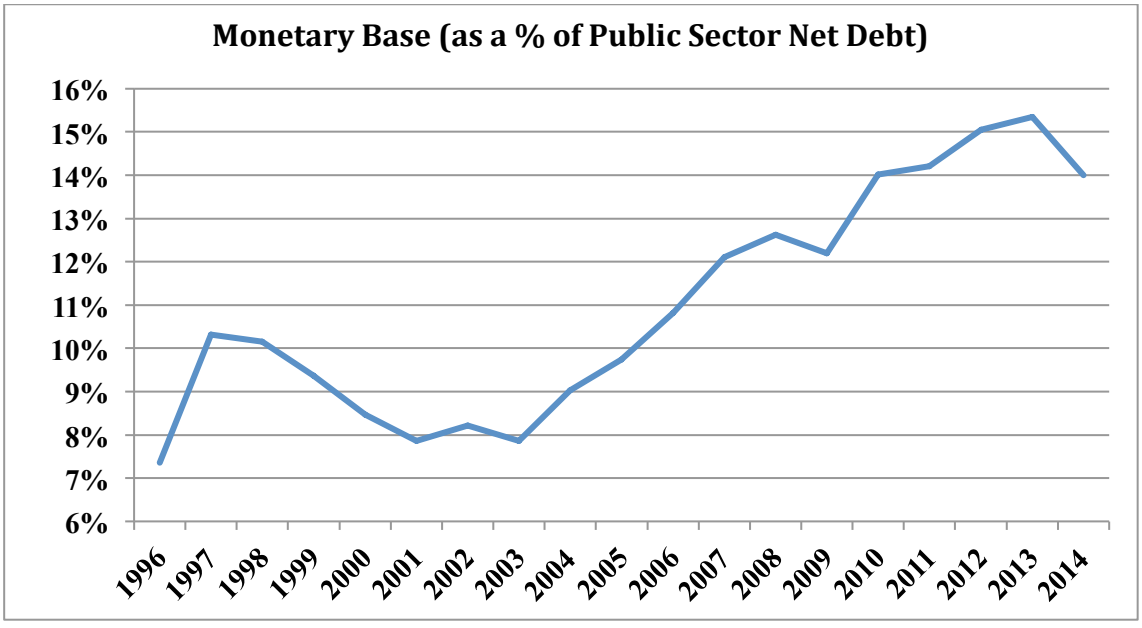

Figure 6.4: Percentage of monetary base as a total of the Net Sector Public Debt 1996 - 2014
Source: Secretaria do Tesouro Nacional (2016a)

These sterilised operations rely on repos and mean expansion of public indebtedness via the BCB debt in the market (Instituição Fiscal Independente, 2017, p. 5). With the temporary sale of government bonds, the BCB is able to reduce the liquidity generated with the purchase of foreign reserves. As a result, the BCB absorbs

the excess of liquidity in the economy, trying to keep the monetary base unchanged (Instituição Fiscal Independente, 2017, p. 5; Laan, Cunha, & Lélis, 2012, p. 21).

Thus, inflow of capital followed by the purchase of foreign reserves simultaneously implies BCB interventions in the foreign exchange market, sterilisation policy and fiscal costs to the public sector. Further, despite the effects on the level of public indebtedness, the accumulation of foreign reserves also affects the public sector debt in two different ways.

Firstly, as already mentioned above, sterilisation often involves monetary authorities exchanging high yield domestic assets for low yield foreign assets, as there is also the issue on the differential between the rates. For example, in August 2008, the Brazilian authorities bought low yield foreign assets, i.e., US Treasury bonds at 2 percent, when the SELIC rate paid on the sterilisation bond was 13 percent a year (Laan et al., 2012, p. 21).

Secondly, when the exchange rate varies, the stock of foreign reserves also varies (Figure 6.5). If there is devaluation of the exchange rate, the value in Real of the foreign reserves increases, which is considered a positive result in the BCB portfolio. If there is exchange rate valuation, the value in Real of the foreign reserves decreases, which is considered a negative result. Positive results mean transfer of money to the Brazilian Treasury while negative results mean issuance of government bonds to the Treasury to cover it (Instituição Fiscal Independente, 2017, pp. 6–7).

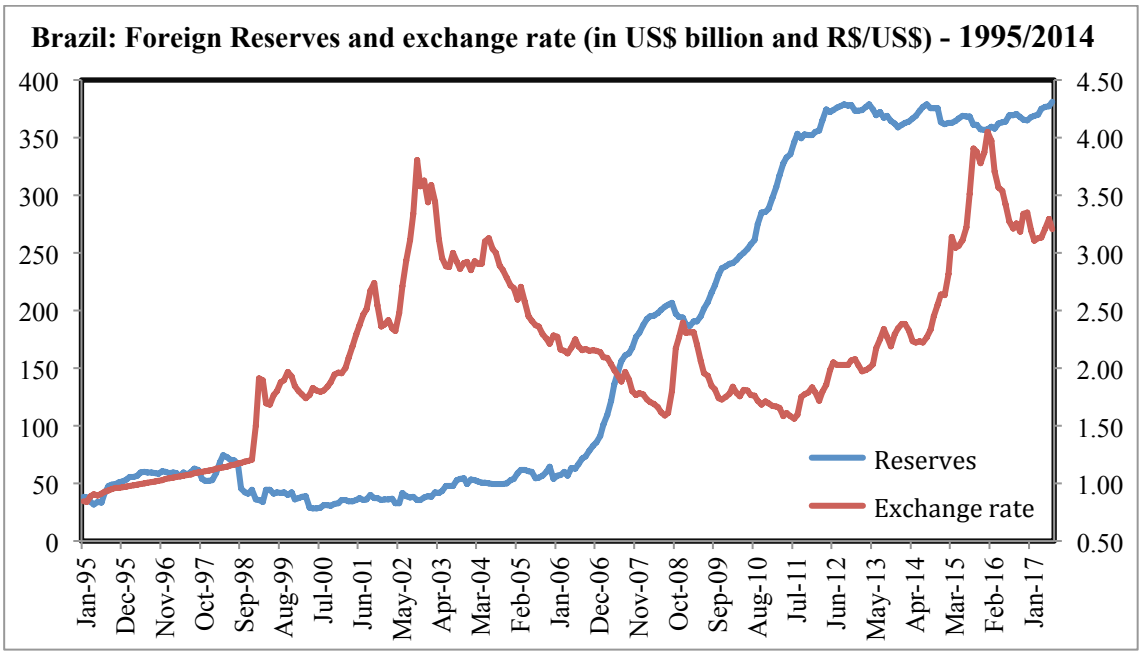

Figure 6.5: Brazil Foreign Reserves vs exchange rate (in US$ billion and R$/US$) 1995 – 2017
Source: Banco Central do Brasil (2016a)

It follows that since then the BCB has been conducting substantial amounts of repo operations to sterilise its accumulation of international reserves. This accumulation was greatly helped by the return of international liquidity and the commodity boom, but it has not stopped since 2006. As a consequence, from 2006 onwards in Brazil, there was a significant change on the side of the public assets because of this accumulation of foreign reserves (Carvalho et al., 2016, p. 561) (see Chapter 5). This created an intrinsic linkage between reserve accumulation and DPD (Painceira, 2009, 2010) not only because this accumulation demands a sterilisation policy, which then leads to accumulation of liabilities, but also due to the high cost for the public sector resulting from the differential between domestic and international rates, as discussed in Chapter 5.[268]

It is worth highlighting that the accumulation of reserves in Brazil has been discussed in terms of its optimal levels, efficiency in reducing sovereign risks and its fiscal costs for the government (Cavalcanti & Vonbun, 2008; Ferrari Filho & de Paula, 2004; Goldfajn, 2016; Goldfajn & Minella, 2005; Laan et al., 2012). For this thesis,

[268] Rodrik (2006) pioneered the measurement of the social cost of reserve accumulation. He estimates the annual loss to developing countries at close to 1 percent of GDP for the accumulation of foreign reserves. In more general terms, authors such as Eichengreen (2006), Fine (2010) and Painceira (2009) point out the cost of foreign accumulation strategy from the perspective of productive investment. Essentially, the accumulation means lower levels of investment in the public and private sectors and contributes to large increases in domestic public debt because of monetary sterilisation rather than the support of national development.

however, there two aspect related to the accumulation of foreign reserves that are particular relevant. Firstly, as mentioned before, this accumulation became a significant feature of developing economies after the financial crisis at the end of the 1990s. From this perspective, one can summarise this policy considering the roles of this reserves in reducing the potential destabilising impacts of capital flows on one hand, and the guarantee of liquidity for investors in Brazilian assets, whether FDI or other instruments, one the other hand.

Investors need some assurances that the assets they have invested in have stable prices. Smoothing overshooting tendency, for example, requires reserves, which can be sold or bought as needed. When Real depreciates, the monetary authority buys Real selling reserves and injecting dollars into the market. When monetary authority buys reserves, it increases the monetary base and, therefore, needs to sterilisation policy. In both cases the government bond/reserve equation is operative because the Brazilian monetary authority has used government bonds to either buy Real, in this case the government repurchase bonds, or sell Real issuing new bonds or selling bonds from the BCB portfolio.

In this sense, although the fiscal cost of accumulation of foreign reserves is indeed a striking factor to explain the connection between reserves and public debt, one crucial aspect to highlight is the extent to which investors' [speculative] behaviour, asset prices, risk and capital flows movements are intimately interwoven with the issuance and trade of government bonds.

Secondly, as the Brazilian monetary authority has opted to finance foreign reserves through the issuance government bonds together with the use of sterilisation policy that relies on repos operations, the accumulation means offering to the market opportunity for short high yields investment in domestic assets. As a result, the policy of reserve accumulation becomes a tool to guarantee liquidity and reduce external vulnerability while promoting and attracting short term capital flows looking for high yield financial investments.

Needless to say, the foreign reserve policy contributes to making the public debt a privileged locus for proliferation of titles to fictitious capital. Further, the accumulation has made the value in domestic currency of the stock of public net debt very vulnerable to exchange rate fluctuations, as already mentioned above. In short, the value of the BCB's assets constituting foreign reserves "increases (decreases) with the devaluation (appreciation) of the exchange rate, thus reducing (increasing) public net

debt" (Carvalho et al., 2016, p. 560), which also adds pressure to the BCB policy to keep the exchange rate stable via the use of exchange rates derivatives.

The intrinsic linkage between reserve accumulation and DPD ends up having two functional roles in the international monetary and financial system under the US dollar hegemony. The first is that the need for higher savings in emerging markets in the form of dollar-denominated reserves leads to the corresponding funding of US indebtedness, a situation similar to that of Japan, Germany and other countries in Europe financing the US fiscal deficit in the 1980s. Brazilian savings in the form of dollar-denominated reserves means the accumulation of dollar-denominated bonds and US Treasury bills by the BCB and other emerging markets' central banks; this, Fine (2010, p.17) argues, enables the US to sustain its current account deficit and at the same time provide liquidity expansion for international financial markets.[269]

From this perspective, according to Lapavitsas (2009), the policy of reserve accumulation to allow countries to participate in international trade and confront financial flows is, in fact, a policy of intensified hoarding of the dollar as world-money. Developing countries have been obliged to accumulate vast hoards of world-money whose value rests solely on the promise of the US government to pay an (intrinsically valueless) dollar for every dollar of its debt (p. 15).

The second functional role is that the increasing of DPD within a context of accumulation of foreign reserves creates an opportunity for domestic capitalists (both financial and non-financial) to invest in financial assets over productive activity (Painceira, 2009, 2010). In short, the accumulation of reserves also contributes to attracting financial investors and fomenting purely financial transactions:

> [N]ot only were bond yields attractive to investors, but the quality of the assets offered by emerging markets also became more palatable. About half the outstanding bonds issued by emerging economies are now rated investment grade, up from about 30 per cent in 2001. That has a lot to do with successful policies to build up foreign reserves, which emerged as a key lesson from the financial crises of the 1990s. (Datz, 2008, p. 84)

This aspect is what is behind the discussions of Eichengreen (2006) and Fine (2010) regarding higher saving in developing countries in form of dollar-denominated

[269] See Painceira (2009, pp. 14-16), for a more detailed account of the impact of reserve accumulation on the US economy.

reserves, and the corresponding lower levels of investment in the public and private sectors. Further, the accumulation of reserves in foreign denominated currency also means the net transfer of income abroad, negatively affecting domestic growth (Stiglitz, 2007). In Brazil, for example, from a different angle, Laan et al. (2012) discuss how sterilisation policy, due to its absorption currency, negatively impact public investments and aggregate demand (p. 22). Their work of Laan et al. (2012) also links these negative impacts with the reserves accumulation.

For these reasons Painceira (2009) argues:

> [T]he strategy of reserve accumulation has had two major implications for developing countries. First, it has led to capital transfers (positive net lending) from developing countries to developed countries. Second, it has contributed to large increases in domestic public debt because of monetary sterilisation rather than to support national development (p. 13).

The next factor that places the governments at the center of financialisation in Brazil is use of hedge mechanisms by the state. The configuration starting with the WC also meant the Brazilian government had to intervene strongly in the economy due to possible exchange rate or financial crises. This is evident in the exchange rate crises of 1999 and 2002, the financial crisis in 2007-8 and the political crisis in 2013-14. These crises in the midst of a dependence on international liquidity meant that from the moment there was a reversal of capital flows, as in the Mexican Tequila crisis in mid-1994,[270] the monetary policy and its inflation fighting focus tried to find ways to maintain capital inflows and/or avoid exchange rate fluctuations.

Essentially, each time this kind of crisis occurred or international liquidity was scanty, international financial markets became temporarily resistant to financing deficits from peripheral countries, which quickly exhausted the Brazilian foreign reserves. This required a policy response of extremely high interest rates, especially in the 1990s due to the semi-fixed exchange rate, to protect Brazil from contagion and preserve capital inflows. Further, to keep the liquidity of its securities, the government also reduced the federal security debt maturity (see Chapter 5), which, at the same time, increased its cost due to the risk perception of the financial collapse of the central government.

[270] The reversal in capital flows started in mid-1994 when the Mexican Tequila crisis was triggered by the US interest rate rising. This led to capital outflow and the immediate collapse of the Mexican peso. Brazil experienced a shortage of liquidity through a rapid loss of its reserves and high public deficits. Similar capital flights occurred after the Asian and Russian crises in 1997 and 1998 respectively.

If there is a decrease in foreign reserves, as happened after the Asian crisis in 1997 (Figure 6.5. above), the Brazilian economy also becomes vulnerable to speculative attacks. This situation was one of the multiple causes[271] for the exchange crisis in 1999 when the Brazilian Real became a target for this kind of attack and the risk of devaluation kept pressuring the government stabilisation plan, making an exchange rate crisis probable. The Brazilian Treasury's and BCB's response was to offer the private sector (financial and non-financial) hedge mechanisms.

At the end of the 1990s this mechanism consisted of issuing dollar-linked and exchange rate linked securities and derivatives trade prior to the Real being allowed to float in 1999 (see Chapter 5). Therefore, the private sector, including NFCs, hedged their dollar liabilities by purchasing these dollar- and exchange rate linked securities and taking short Real positions in the futures markets. The hedging limited the impact on banks' loan portfolios, and avoided spreading bankruptcies, generalised financial distress or a credit crunch. Further, as indicated in Chapter 5, it brought substantial gains for financial institutions.

The year 2001 was also marked by a pressure on the Brazilian Real, and increased demand for foreign currency and foreign exchange hedging by the private sector. Internationally, the reasons for this are found in the Argentinian crisis and increased risk aversion following the terrorist attacks on September 11, 2001. Domestically, stop-and-go cycles of sluggish growth and the imminent presidential election in 2002 were also contributing factors.[272]

The Brazilian Real fell between January and October 2001 and the BCB's response to mitigate the effects of increased demand for hedging was, again, to provide hedges through net placements of US dollar linked securities. The devaluation of the Real and the hedges provided by the BCB led the net public sector debt to increase that year by almost 4 percent, reaching 53 percent of GDP (Dodd & Griffith-Jones, 2007, p. 42) (see Chapter 5).[273]

This can be understood as the power of the financial market over the political

[271] See Saad-Filho and Mollo (2002).

[272] In the 2002 presidential election, financial institutions refused to buy government bonds due to their concern about Lula's radical image. The BCB increased its OMOs to try and prevent the resources resulting from this refusal reaching the foreign exchange market, a turn of events which would lead to the devaluation of the Real. In essence, the government did not have the capacity and autonomy to sell medium- and long term securities, and the BCB lost of control over the open market. For details of the social, political and economic processes underpinning Lula's election in 2002 see Boito (2003, 2007), de Paula (2003), Morais and Saad-Filho (2005), and Paulani (2003).

[273] For more details about the speculative attack in terms of reduction of the financing of the Brazilian economy in 2002 see also Barbosa and de Souza (2010), pp. 1-2.

process and the complacency of the Workers' Party neoliberal policies.[274] It shows the state being reformulated to manage the increasing opportunities for speculative and trade risk operations within a financialised context. The hedge mechanism is how the government nationalised the exchange rate risk through its monetary and exchange policy of sustaining the exchange rate, which usually favoured financial investors and speculators.

Despite changing its format, hedge mechanisms became common practice for the Brazilian monetary authorities over the following years, confirming the changes in the BCB management within a context of financialisation. The high cost of exchange rate depreciation for the public sector led the BCB to begin replacing US dollar-indexed Treasury bonds with foreign exchange swaps (FX swaps). This was also an outcome of Brazil joining the IMF and World Bank Program to develop the government bond market in 2001: the program required the issuance of dollar-indexed bonds to stop, mainly because of the cost to the financial sector. Since then, apart from foreign reserves, FX swaps is also a mechanism to absorb shocks in case of external crisis and liquidity fluctuation. Thus, helping to maintain financial stability.

The use FX swaps use does not relay on the need to accumulate foreign reserve, as they are basically a derivative contract (see below). Overall, in Brazil, liquidity provision in foreign exchange consisted mainly of FX spot sales, repo operations and trade finance loans. However, the BCB can also intervene in the derivative market through FX swaps and "in contrast to spot interventions, the FX swaps do not deplete international reserves as they involve an agreement of foreign currency sales by the central bank at determined future dates" (Painceira, 2010, p. 290).

As discussed in Chapter 5, the BCB's FX swaps is a derivative instrument consisting of buying standard derivative contracts (futures contracts of interest rates) when institutional and other private actors demand US dollars during periods of depreciation of the Real.[275] It is essentially a macroeconomic strategy to directly manipulate the exchange rate in order to keep inflation at its target while having the goal of providing foreign exchange market liquidity. When utilising such swaps, the BCB assumed a long foreign exchange position and a short interest rate position, with the result that it has a net long position in currency-linked instruments.

These FX swaps are low risk because they are traded at the BM&FBovespa and

[274] For a critique of the continuity of neoliberalism in Brazil after the 2002 Labour Party election see Carneiro (2006, 2007), de Paula (2003), Lopreato (2007), and Paulani (2003).
[275] For more details see (Banco Central do Brasil, 2015a), p. 20.

adjusted daily. The BCB pays US$ variation plus local onshore US$ interest rates, and in exchange receives the cumulative one day interest rate on interbank certificates of deposit (the so called CDI rate) over the period of the contract (see Chapter 5). It effectively works as a "FX hedge for takers of the swap" (Bevilaqua & Azevedo, 2005, p. 124) and "acts as a long real position for those betting against the currency" (Dodd & Griffith-Jones, 2007, p. 43).

The steady supply of these contracts usually lowers their price and thus raises their yield while being protected from devaluation. The direct result is that those with access to foreign credit can earn this high yield without the exchange rate risk, which has led to both major profit opportunities for banks and an inflow of short-term capital (Dodd & Griffith-Jones, 2007, p. 43).

A similar hedge mechanism is used when there is a tendency towards appreciation of the Brazilian Real as, for example, after 2004 with the return of international liquidity and the commodity boom. The tendency towards appreciation threatened the IT regime and demanded BCB's intervention in the economy through reverse FX swaps operations. In this situation, the BCB sold standard derivative contracts, i.e., futures contracts of interest rates, which meant buying these dollars in futures markets. "This is the reverse of the swaps offered by the BCB during periods of depreciation, when institutional and other private actors demanded US dollars" (Dodd & Griffith-Jones, 2007, p. 46). The BCB's reverse FX swaps have constantly contributed to liquidity for foreign investors, making their bets on Real appreciation effective.

The replacement of US dollar linked bonds with FX swaps is considered an achievement and a modernisation of monetary policy in Brazil. However, it is also the result of state complacency and involvement in the financial market's speculative games brought by financialisation. The DPD is again at the centre of this mechanism. FX swaps are not considered debt instruments, therefore their inclusion in the public sector debt is done based on the reduction of the floating rate debt stock. The explanation for this is that when the BCB issues a swap contract, it receives the CDI rate and pays similar flows to the exchange rate (Dupita, Ferreira, & Robotton Filho, 2004, p. 7). When the derivatives are considered as debt, it is possible to see the level exposition of the debt to the exchange rate; and if these instruments are excluded, the portion of the floating exchange rate (SELIC) increases. Either way, the FX swaps impact the public sector debt.

Once more the government and BCB, via monetary and exchange rate policy, provided very costly free insurance to the banks and allow extremely high profits for private banks while increasing the public debt. As Dodd & Griffith-Jones (2007) wrote, referring to the BCB use of FX exchange swaps: "the modality whereby the government and BCB bore the exchange rate risk was changing, but the level of the hedge that they provided the private sector was rising" (p. 43). In short, the government carried on its practice of nationalising the exchange rate risk.

The final point on how the configuration that emerged in the 1990s in Brazil has meant the financialisation of the state refers to reserve requirements. The reserve requirement is another tool of monetary policy, but one less common than OMOs and repos. The goal is the same, i.e., to increase or reduce the amount of funds that banks can turn into credit to the economy, and therefore affect the interest rate. The reserve requirement in Brazil accompanied the statute of the creation of the BCB itself. It is preferable over the idea of lender of last resort, as the bank is not legally independent and this type of lending in Brazil raises the issue of assisting financial institutions using public money (Mesquita & Torós, 2010).

Reserve requirements have long been viewed as a source of financial repression in developing economies, undermining efforts to promote financial sector development. For this reason, reserves requirements were fewer between the 1990s and mid-2000s. Nevertheless, since the exchange rate crisis in 2002-3, banks in Brazil have generally kept their reserve requirement higher than the BCB requirement (Hardie, 2012, p. 36) because they offer opportunities for financial gain through the holding of government bonds (see below). Further, monetary authorities have also raised reserve requirements to control credit (Robitaille, 2011, pp. 4, 25), as the latter had been growing quickly since the implementation of developmentalist policy in 2006.

Recently, however, this tool has been more frequently used as a liquidity management tool in order to preserve financial stability, and it has increasingly been regarded as a liquidity cushion (Banco Central do Brasil, 2016c, p. 5). More specifically, it was only after the 2007-8 crisis that the reserve requirement has been more directly pursued in Brazil due to the Basel Committee on Banking Supervision (BCBS) and its proposal of new liquidity requirements for banks.

The BCB not only has the authority to set the reserve ratio and decide whether or not to pay interest on required reserves, it can also determine the type of asset that must be held to satisfy the requirement, including cash, government debt, or 30-year

assets that earn below-market rates (Robitaille, 2011, pp. 28–29). The majority of the reserve requirements are held in cash and government bonds that earn the SELIC rate on their balances (Robitaille, 2011, pp. 17-18).

Not all Brazilian economists and monetary authorities agree on the use of reserve requirement. Arguments for and against cite the cost of these reserves for the government, the high cost of credit and how it inhibits financial development (Cardoso, 2003; de Carvalho & Azevedo, 2008; Goldfajn, Hennings, & Mori, 2003; Rodrigues & Takeda, 2004). Interestingly, on the opposite direction of financial repression, banks in Brazil have used financial innovations to circumvent reserve requirements, an operation known as *repo funding*.[276] These are marketed mainly to large investors (companies, wealthy investors, and mutual and pension funds) and offer relatively high returns and short maturities (no more than a year).

The 2007-8 crisis showed that the growth in repo funding increased banks' vulnerability to funding pressures (Robitaille, 2011, p. 21). In January 2008, the government announced a 100 percent government bond holding requirement on new repo borrowings, i.e., the substitutes for funding requirements, and a 25 percent government bond holding requirement on outstanding repo borrowings.[277] This also put pressure on increasing the SELIC rate, and led large banks in the first half of 2008 to aggressively compete amongst themselves for deposit funding in an attempt to unwind their repos in response to the new reserve requirements (Robitaille, 2011, pp. 24, 26).

The government decision led the banking sector to hold not only cash and government bonds as reserve requirements, but also government bonds in the form of reverse repo agreements. At the end of September 2008, the banking system held an estimated R$172 billion in reserve balances at the central bank and the banking sector as a whole also held over R$300 billion in government bonds in the form of reverse repurchase agreements (Robitaille, 2011, p. 30). This shows that since 2008 the government has attempted to ameliorate the vulnerability of funding pressures generated by the use of repo funding by using government bonds and higher interest rates. Once again, this was also expensive for the public sector debt.

All the above shows that the specific structure that emerged with the integration of the Brazilian economy into the process of financialisation is heavily underpinned by the government bond market and the trade of government bonds. For this reason,

[276] How banks create this particular type of repo involves affiliated leasing companies and is a complex process. See Robitaille's (2011) Appendix A.

[277] These reserve requirements were fulfilled by holding marketable government bonds that earn the SELIC rate.

government bonds themselves, and the respective monetary and exchange policy using them, form a particular channel through which financialisation evolves and deepens in Brazil. This is a significant feature of the country's financialisation, and is related to reasons that range from the subordinate position of its currency, support and management of domestic financial markets to the susceptibility to financial crises mainly related to foreign capital flows driven by the dynamics in the core. From this perspective, financialisation and DPD are intrinsically related in Brazil. As a consequence, financialisation in Brazil has been based on the growth of public debt.

The Brazilian case confirms that the process of financial deepening has resulted in the dominance of government debt instruments (GDIs) in the financial markets of developing economies, as argued by Correa, Vidal and Marshall (2012), Ertürk (2003), Hardie (2012), and Painceira (2009). Interestingly, the Bank for International Settlements (2007) not only documents a substantial increase in DPD in these developing economies, but also a shift in the denomination of debt from foreign exchange to local currency, confirming that developing countries became immensely indebted internally.[278]

This scenario has yet another particularity. The main holders of these expanded government bond markets in developing countries have been financial institutions, especially banks: the percentage of financial institutions holding DPD rose 57 percent in 2000 to 80 percent in 2005 (BIS, 2007, pp. 68-69). The direct implication is that the economic power of financial institutions has once again been greatly strengthened within developing countries' economies.

In Brazil, the reality has been the use of government bonds as part of banks' portfolios, followed by their use as the backbone of the secondary market operations involving repos, hedge and speculative maneuvers, and as a profitable source of return due to their high yields and the high risk premium offered.[279] The main holders of Brazilian government bonds are large national financial institutions.

This is in line with Lapavitsas' (2009) argument for the case of financialisation in developing countries:

> Liquid public securities have provided a foundation for a variety of domestic financial transactions as well as for emergence of new financial institutions in

[278] Although they have become substantial in Latin America, the government bond markets have grown most strongly in Asia, which also holds by far the largest reserves (Lapavitsas, 2009, p. 17).
[279] In 2009, 50 percent of the total incomes of the Brazilian privates banks came from government bonds (Painceira, 2010, p. 281)

> developing countries. Liquid domestic markets have also made it possible for domestic banks increasingly to engage in activities that resemble those of developed countries. (p. 17)

In this context, given the features that government bonds as titles to fictitious capital have, the policy recommendation by the IFIs regarding the development of bond markets in developing economies, and the understanding of this market as the cornerstone of financial markets, emerges from a different perspective. In Brazil, the PDM literature guideline (using a discourse on cost, risk, debt sustainability and borrowing capacity) changed and created many measures, rules and laws which mainly provided the conditions for investors and banks to profit from and speculate with government bonds, and for easy exit from domestic financial positions.

Further, it provided grounds for monetary and exchange policy to guarantee financial and macroeconomic stability through sterilisation and a foreign reserves accumulation policy, repos/reverse repos, reserve requirements and intervention in the derivatives markets through FX swaps contracts, which have not only been a source of speculation and profit in the primary and second markets, but also reinforced the short-term nature of the domestic financial position and the entries of short-term capital inflow. This arrangement has significantly spurred financialisation and is a fundamental aspect of advancing financialisation in Brazil, as liquid government bonds and the government bond market have permitted and underpinned the increasing of trade with titles to fictitious in the economy.

This goes back to the argument developed in Chapter 3 as to how, as titles to fictitious capital, government bonds' functions are not restricted to covering public deficit or impacting AD. They can be used in several different ways in financial markets and that is why these bonds are active tools for governments that use them to intervene in and manage financial markets in order to control economic variables, such as exchange rates. This is essentially done through monetary policy and its tools. By the same token, bondholders, ranging from banks, pension funds and firms to individual investors, can use these bonds to regulate their reserves, temporarily park available funds, obtain liquidity at short notice and move seamlessly across different forms of fictitious capital.

This reveals states and their monetary policies to be intrinsically linked to the dynamics and development of financial markets. Furthermore, it shows that the

literature on financialisation should not approach public debt only from the perspective of states stepping in to afford the costs of this process and/or when profligate behaviour requires large-scale expenditure cuts to placate the bond markets. By the same token, this literature should not approach the changes on government policies mainly form the perspective of how government policies are less efficient or constrained by free capital flows or capital mobility.

The Brazilian case shows that, as a title to fictitious capital, government bonds assume a broader role as an instrument for implementing monetary policy and consolidating the financial system mainly because these bonds are essential to the central banks that use them daily to control market liquidity and stabilise the currency. Further, government bonds, in a context of floating exchange rates and in the presence of a number of national currencies, are used to mitigate and protect the country against investor speculation, in general, by accumulating foreign exchange reserves and using other hedge mechanisms such as FX swaps. This is not about constraints, it is about the use of government bonds and, more broadly, public indebtedness, to manage and keep the financial market stable and liquid.

In sum, the causes of the increase in and the dynamics of public debt in Brazil should neither be examined dissociated from the process of financialisation nor only through a focus on high interest rates due to capital liberalisation. The reformulation of the state in Brazil since the 1990s has meant the use of government bonds – and public finance more broadly – for a myriad of operations that do not pass through the government budget plan and are not included in the public deficit. The public sector underwent structural changes that gave the DPD a very specific role linked to the fiscal, monetary and exchange policies that are intertwined with the financial markets' functioning. In this scenario, DPD is active and not the result of any public deficit. This makes the public sector debt a central component of the process of financialisation in Brazil.

6.5. Conclusion

The financialisation process that started being delineated in Brazil in the beginning of the 1990s is not a consequence of the international aspect of financialisation that occurred primarily in developed countries, but rather a part of a process of financial globalisation resulting from the dollar hegemony, which placed the US dollar as the common denominator for an exponential process of financialisation.

This process implied a monetary and fiscal policy alignment that started in the 1980s, especially when the financial systems of domestic economies become internationalised, and financial liberalisation and deregulation policies were implemented. The latter allowed and promoted the increasing internationalisation of capital, which had achieved the internationalisation of finance by a strategy of macroeconomic stabilisation and liberal policy of deregulation of financial markets at its core.

The neoliberal adjustments begun in the 1970s reflected this process. When these reforms arrived in Brazil in the 1990s via the WC, a favourable environment met them. Firstly, there was the legacy left by the high inflation period, namely, a credit mark characterised by short-term and SELIC indexed debt instruments. Secondly, was Brazil's involvement in borrowing from international financial markets and initial changes regarding the solidification of its sovereign debt market, as an outcome of the debt crisis. Finally, there was the urgency to rescue Brazil from the lost decade and exhaustion of the ISI. This facilitated the implementation of a new regime of growth that relied heavily on financial deepening and the development of financial markets, including a government bond market, which would then lay the foundation of the process of financialisation.

The reforms and transformations of the 1990s led to financialised practices in the economy in several loci. That is, the financialisation of the Brazilian economy can be witnessed in different segments following the particularities of this economy. For example, in Brazil there has also been the NFCs' shift towards financial investment, which is not only related to the transformations in firms' funding opportunities, but also, in the case of Brazil, to the involvement of these firms in derivatives markets to hedge themselves against exchange rate and interest rate risks. This last aspect is also valid for financial institutions that exploit the Brazilian condition of high interest rates and weak currency through their engagement in arbitrage and carry trade operations, reflecting a different dimension of financialisation in this economy. Increasing households' indebtedness due to foreign bank entry, reflecting the financialised practices developed economies, is also witnessed in Brazil especially after the mid-2000s.

The key point made in this chapter is, however, that the expansion of trade with fictitious capital in this economy is supported and augmented by the use of government bonds in diverse ways in order to manage the increase in financialised practices, and by

the development and increasing use of financialised practices such as FX swaps and repos by the state itself. This has given a particular feature to the process of financialisation in Brazil and placed the DPD at the core of this process.

From this perspective, the finance dominance that emerges post-1994 is not seen only through the centrality of high interest rates in the process of financialisation in Brazil, which brings substantial gains to the financial sector and financial investments. It is the state's engagement with financial innovations to exercise its economic policy and the state's action to capture, maintain and counteract the effects of capital inflow that are the drivers of this dominance – and therefore financialisation. Interestingly, while seeking to counteract threats of foreign capital outflows and exchange rate instability, high interest rates and greater issuing of GDI have deepened the financialisation process in Brazil.

The institutional, regulatory and policy changes in Brazilian finance – which transferred control over the most important levels of accumulation to a small number of unaccountable institutions controlled by domestic and international finance, allowing these institutions to hold the vast majority of the government bonds and command large amounts of foreign currency – offered the material conditions for this process.

Essentially, the state, following the arrangements resulting from, first, the stabilisation plan, and later the IT regime, within the post-Bretton Woods international monetary and financial order, needed greater issuance and trade of government bonds to implement monetary and exchange rate policies. These conditions forced the state to keep producing the conditions demanded by the financial markets, which in turn fomented and consolidated the process of financialisation. In this light, economic policies assume different functions within the context that emerged after the 1990s, which is understood as financialisation of the state in the sense developed by Lagna (2016) and discussed in Chapter 4.

Hence the capitalisation of future state income through GDI exchanged in domestic and international markets played a similar role for Brazil as the debt-driven expansion of finance based on the flow of household income into financial markets or the NFCs' involvement in financial activities played for developed economies. This configuration has been uncritically supported and encouraged by the IFIs and the Brazilian state.

Chapter 7 - The Brazilian speculation stabilisation trap: fiscal or monetary reasons?

7.1. Introduction

While the debate on financialisation in Brazil highlights public sector financial fragility, budget deficits and increase in public sector indebtedness, there is an issue regarding the type of state intervention demanded since the 1990s and the type of the monetary policy demanded since then. Essentially, within the macroeconomic scenario resulting from the stabilisation plan followed by the inflation targeting (IT) regime – themselves embedded in the international changes launched in the 1970s – the state not only needs to issue a greater amount of public debt for monetary policy, but also becomes increasingly more engaged with financial innovations or old financial instruments, such as repos. This then forces the state to keep producing the conditions demanded by financial markets, consolidating and fomenting the process of financialisation in Brazil. In this light, monetary policy assumes different functions within the context that emerged after the 1990s and reflects the financialisation of the state.

This chapter presents a concise scheme of the drivers of monetary policy from 1994 to 2014 in order to better elucidate the above. The scheme shows that the dynamics of the net public sector debt (NPSD) in Brazil are found in its monetary policy. More importantly, it shows that this is the result of how the state uses government bonds to underpin the integration of the Brazilian economy into the international financial markets. It also exposes how the state in Brazil is necessary to absorb risks and fluctuations resulting from the volume and complexity of financial assets produced, accumulated and traded in these markets. As a consequence, the public sector debt is placed at the core of the financialisation process in Brazil.

Two important implications follow. Firstly, the state and its monetary policy lead the economy into a speculation stabilisation trap (SST) in which the goals and tools of monetary policy result in offering an attractive, secure and profitable source of financial short-term and speculative investments. This reinforces high interest rates and the continuous inflow of short-term volatile capital flows. In addition, this can only happen at great expense to the public sector debt. Secondly, the link between monetary policy and financialisation aggravates the contamination between fiscal and non-fiscal

factors that exists in the calculation of Brazil's public sector borrowing requirement (PSBR), leading to further fiscal consolidation. This point leads to a brief reassessment of the heterodox critique of monetary policy and solution to control the growth of the NPSD. Differing from the heterodox literature that engages with the PSBR concept under the nominal and operational perspectives, this thesis argues that non-fiscal factors should not be included in the PSBR.

Following this introduction, the chapter is divided into three sections. The first elaborates on the drivers of monetary policy from 1994 to 2014. It uses these to argue that there has been a SST in the Brazilian economy since mid-1994. The second section examines the definition of public deficit in Brazil. It revisits the issue of fiscal and non-fiscal contamination in the calculation of PSBR to then highlight the extent to which this contamination is enhanced by the process of financialisation. The section also points out how heterodox scholars relatively neglect this aspect; this neglect poses a few challenges to these scholars' solutions to the issues around public debt in Brazil. The last section concludes.

7.2. The drivers of public sector net debt in Brazil from 1994 to 2014

Monetary policy is an important component of the dynamics of capitalism. Although there is a difference between monetarism following Friedman (1968) and its replacement by the Austrian School's monetary approach as formalised in the New Macroeconomic Consensus (NMC), the role of monetary policy since the 1970s has frequently and basically been understood as concentrating on interest rate management and manipulation. Fundamentally, monetary authorities use interest rates to influence and manage i) the availability of resources in the financial system, which is commonly referred to as controlling liquidity, ii) asset prices underwriting finance and, iii) relevant economic variables, such as exchange rates and inflation (Chapter 2).

Since the adjustments that have been implemented systematically from the 1970s onwards, monetary policy has assumed a more prominent role at the expense of fiscal policy. These adjustments allowed and promoted the increasing internationalisation of capital, while having at their core the internationalisation of finance through a strategy of macroeconomic stabilisation and a liberal policy of deregulating financial markets. Thus, the more prominent role of monetary policy follows and is inseparable from the process of financialisation, which in turn is closely associated with the dollar hegemony and the US policy for external markets (Chapter

4).

In Brazil, a particular feature of this configuration is how interrelated the monetary and exchange policies became; this enhanced the relationship between manipulation of interest rates, management of liquidity, and issuance and trade in government bonds. This interrelation, together with the conditions demanded by financial markets to guarantee demand for government bonds and the hedging practices of the private sector to avoid exchange and interest rate risk, have fiercely oriented and dictated the economic interests and decisions of the Brazilian state. Further, it has caused the government to increasingly rely on the use of financial innovations and instruments to implement its monetary and exchange rate policies (Chapter 6).

The heterodox literature on public debt unfolds the aspects above in several insightful ways, exposing the institutional and historical specificities of the macroeconomic arrangements and policies in Brazil since the 1990s. A detailed discussion of capital liberalisation, high interest rates, primary surplus targeting and monetary policy focusing on price stability leads this literature to place the financial cost of the monetary policy at the core of the debates around increases in the NPSD.

In short, heterodox scholars of Brazil make a strong case arguing that the increase in the NSPD since 1994 is due to the financial costs of the monetary policy. However, this outcome is mainly, and sometimes only, associated with high debt service and high interest rates; also, the indexation of government bonds to floating rates is very often understood as detached from a type of monetary policy that aims to and prioritises the management and guaranteed functionality of the financial markets and their financialised practices (Chapter 5). This is a shortfall in the literature whose general argument revolves around the state submission to financial markets and/or to capital flows, which is not sufficient to explain how the state and public debt become further and more intricately linked to these financialised practices (Chapter 6).

Considering that the budget deficit of the general government (ΔDg) is the government tax revenue (T) less government expenditure on consumption (Cg), investment (Ig), transfers to the private sector (Tg), and the service costs of the domestic public debt (iDg), the following equation is elaborated:

$$(1)\ \Delta Dg = (Cg + Ig + Tg + iDg) - T$$

The studies mentioned above are essentially looking at iDg. However, it is still necessary to include the central bank and non-financial state-owned enterprises (SOEs), which then leads to the deficit of the consolidated public sector (the PSBR in Brazil). This means the inclusion of changes in the value of the net monetary and financial assets of the non-financial SOEs – the change in their net debt (ΔC) –, changes in the monetary base (ΔM),[280] and changes in the international reserves (EΔR)*, where E is the average exchange rate and R* is the stock of reserves; the asterisk indicates that the variable is measured in foreign currency):[281]

(2) $PSBR = \Delta Dg + \Delta C + \Delta M + E\Delta R^*$

In Identity (1) only fiscal factors are included, which integrates the interest paid on the domestic public debt and, therefore, the debt rollover. Identity (2) includes the monetary authority and, as a consequence, the inclusion of non-fiscal factors in the calculation of the public sector deficit. This is because, in broader terms, factors that lead to changes in Identity (2) involve i) the interest received on the net external reserves (included in EΔR), which depend on both fully exogenous basic interest rates (such as the LIBOR or the prime rate), and the country risk; ii) the relationship between the domestic interest rate and the basic international interest rate, which depends on the expected exchange rate. In this case, again, two non-fiscal variables, i.e., the international interest rate and expected exchange rate, directly influence the domestic interest rate and, therefore, the public sector deficit; and iii) bank behaviour, which influences the monetary base and depends on macroeconomic variables and the preferences of individual banks, including their target liquidity, rate of return, and credit strategy. In these three cases, non-fiscal variables will affect the fiscal deficit and as such, as Morais and Saad-Filho (2007) argue, Identities (1) and (2) measure different types of deficit (p. 168).

In this sense, when it comes to financial market instability, Identity (2) becomes crucial considering the role that monetary authority has in managing foreign reserves, bank reserves and dealing with domestic interest rate. Although interest on repos and FX swaps affects identify (1) through iDg, sterilisation policy due to capital inflow or purchase of foreign reserves, for example, reflects changes in the monetary base. FX

[280] The monetary base includes the currency held by the public and the compulsory and voluntary bank reserves deposited at the central bank.
[281] ΔM and EΔR* are liabilities and assets of the central bank, in the same way they are considered assets and liabilities of non-financial SOEs.

swaps affect mainly the payment of interest, but this payment depends on relationship between the domestic and international interest rate. Reserves requirements will be based on monetary authority's decision based the current financial climate and will also affect the monetary base. Identify (2) is also important when it comes to the Balance of Payment results. Trade surpluses will result in accumulation of foreign reserves and sterilisation policy. Trade deficits will result in importing capital and sterilisation policy as well.

Further, in Brazil, the NPSD includes central bank assets, as the credits to the financial institutions (rediscount) and international reserves (R*) are included.[282] Overall, both the mismatch between the interest rates accruing to certain government assets and its most significant liability, the domestic public debt, and the monetary authority's decisions on using, for example, OMOs, changes in the compulsory bank reserves or FX swaps, are the source of non-fiscal factors affecting the nominal balance of the central government in Brazil, which then triggers pressures for fiscal belt-tightening.

Thus, on one side, there is indeed the problem of the debt service and the debt rollover when discussing the difficulty in controlling the D/Y ratio. However, on the other side, there is the problem of the monetary authority's tools for and decisions on implementing monetary policy. This thesis identifies seven non-fiscal factors: i) cost of foreign reserves; ii) OMOs; iii) external transactions following sterilisation policy; iv) changes in the value of the net international reserves due to variations in the exchange rate; v) net cost of the rediscount; vi) cost of reserve requirements; and, vii) cost of FX swaps operations. In this sense, most of the contagion of non-fiscal factors in the calculation of the deficit represents the costs of the central bank's monetary policy involving financialised practises, and have completely different dynamics and costs to payment of interest on the debt or government spending.

At the policy level, monetary policy in Brazil currently prioritises management of and guaranteeing the functionality of the financial markets regardless of an analytical consideration of the process of financialisation and its implications for the economy.

[282] Additionally, Brazil has another specificity of the calculation of the fiscal deficit. The definition of the deposits of the federal government at the central bank (the government's 'single account') is a liability of the monetary authority. That is, "since the balances of the federal government are held outside the banking system, all public sector expenditures, tax revenues and domestic public debt flows have a direct impact on the monetary base (they are undistinguishable from the creation or destruction of high-powered money)" (Morais & Saad-Filho, 2007, p. 171). This also has a non-fiscal implication for the calculation of the deficit in Brazil, but it will not be explored in this thesis. See Morais and Saad-Filho (2007) and Rezende (2009).

This is a mistake. The key issue overlooked by the heterodox and policy level approaches is that monetary policy is both the result of reforms and changes that fostered financialisation in this country and at the same time the force that keeps producing the conditions demanded by financial markets, thus consolidating, fomenting and deepening the process of financialisation.

This can be made clearer by elaborating on a scheme of the main drivers of monetary policy since 1994, based on Chapter 6.

- 1995 to 1999: sterilisation policy and the rise of hedge mechanisms based on SELIC and US dollar linked bonds. The main drivers of monetary policy were a stern policy of sterilisation of the monetary base to cope with increases in domestic liquidity and hedge mechanisms based on the use of floating rate government bonds to sustain the exchange rate and cope with the reversal of capital flows.
- 1999 to 2004: hedge mechanisms and the rise of FX swaps. Monetary policy focused mainly on attracting capital to sustain the exchange rate, but also intervened in the foreign exchange market liquidity via FX swaps to fight exchange rate depreciation.
- 2004 to 2010: reverse FX swaps and foreign reserve accumulation.[283] Monetary policy drivers were the daily Central Bank of Brazil's (BCB) interventions in the economy through reverse FX swap operations to fight exchange rate appreciation; accumulation of foreign reserves, used as a defense against sudden reversals of capital, also marked the period.[284]
- 2010 to 2014: foreign reserve accumulation, FX swaps, reserve

[283] It is acknowledged that reserves are associated with stabilising the balance of payments, but, as discussed in chapters 4, 5 and 6, in Brazil, and emerging economies in general, they have been used to fight exchange rate volatility.

[284] The 2008-7 financial crisis is, of course, an interim period in terms of what can be considered as the driver of the monetary policy after 2006. The difference is that the BCB intervened, offering broader liquidity in foreign currency by supporting an increase in banking liabilities. The increase in liquidity was met through lowering reserve requirements, and BCB's repo operations and intervention in the derivatives markets via FX swap contracts. BCB's role was basically to allow a smoother and quicker conversion of domestic currency into US dollars, and its actions reinforced the short-term nature of the domestic financial positions that already existed due to the nature of sterilisation operations, which then provided even greater room for manoeuvre for investors in times of crisis. To remediate these speculative maneuvers the BCB continued to reduce the banking system's compulsory reserves and injected more resources into the financial institutions (Chapter 5). However, high interest rates and the uncertain climate resulted in banks avoiding lending these resources made available by the BCB, and directing them to repo operations.

> requirements, and management of the interest paid on repos and FX swaps. During this period the drivers of monetary policy focused essentially on the maintenance of foreign reserve accumulation, use of FX swaps, and management of the interest paid on repos[285] and FX swaps. The only difference is the consolidation of a trend that started after the 2007-8 crisis regarding the use of reserves requirements.

This subdivision further clarifies two aspects. Firstly, Brazil needs the support of the domestic public debt (DPD) for the insertion of its economy into the international financial system. This is necessary because the state, via the DPD, is able to absorb the risks and fluctuations of financial markets. Consequently, since 1994 the dynamics driving the NPSD in Brazil has been found in the execution of the monetary policy (Chapter 6). Secondly, the state is a hostage of a SSP, as it has to not only keep producing the conditions demanded by financial markets to manage the relevant economic variables, but also its monetary policy tools appear as an attractive source for speculative and financial gains, resulting in a financial market structure with an overwhelming dominance of government bonds so that the majority of income is derived from interest paid on these titles.

In more general terms, the increase in Brazil's public debt is associated with interest and exchange rates, GDP, deflation, reduction of the primary surplus and patrimonial adjustments (so-called "skeletons"). Under a strict focus on monetary control and achievement of surpluses, the existence of the public debt is found in covering the primary deficit (new issuance for interest) and monetary tools related to monetary control (reserve requirements, rediscount operations, OMOs, foreign reserves, FX swaps and so on).

The issue is, however, that these tools cannot be separated from either the development of financialised practices in the economy or the state complacency with financial market short-term speculative activities, which are implemented in order to that the state meets its monetary control and keep exchange rates stable. Financialisation increases the need for and enhances the role of the monetary tools mentioned above.

[285] The need for repos due to liquidity control is a challenge the Brazilian economy has been facing since the mid-1990s due to entry and exit of capital in the economy. After 2006, this became more complicated due to the foreign reserve accumulation policy, as this increased the need for sterilisation. However, after 2011, repo operations started increasing due to other reasons, such as change in the reserve requirements, foreign reserve accumulation maintenance and interest paid on the repos themselves and FX swaps (Chapter 6).

This makes government bonds' issuance and the monetary policy's impact on the public sector debt generally greater than in a non-financialised scenario. Additionally, these monetary tools either encourage or feed speculative and short-term capital flows. For these reasons, the relationship between monetary policy, DPD and financialisation creates a SSP in this economy, which has been gradually built up through time since 1994.

A closer look at the drivers of this monetary policy further explains the trap.

1. Exchange rate stability becomes tied to socialisation of the losses of the financial and non-financial sectors. That is, there is a need for state intervention due to financial and non-financial foreign and domestic investors' speculative activities betting against the Brazilian Real or engaging in any other kind of financial short-term investments which have implications for the economy as a whole. Examples include the exchange rate crises in 1999/2002 and the 2007-8 financial crisis. This is mainly in line with the first driver mentioned above, and the debt increase in this case occurs mainly thought adjustments resulted from the exchange rate devaluation and increasing debt service resulted from SELIC indexed bonds.

   The point here is to look beyond the aspect of dependency. It is a fact that flows of capital towards peripheral economies are more sensitive to the circumstances of the central economies' financial markets than to the macroeconomic policies of the countries receiving these flows. Thus, the dependence on external resources indirectly implies an increase of Brazilian external vulnerability to the cycles of international liquidity and the costs of external financing. The country therefore has a problem regarding exchange rate stability, which demands forms of hedging by domestic financial and non-financial investors, and by the state via, for example, foreign reserves. However, that is not only what is at stake in in the paragraph above. The issue is to expose and highlight how investors take advantage of this fluctuation and how the state allows it. In doing this, the state has not only nationalised the exchange risk, but also assumed as normal practice for the BCB, the offering of hedge mechanisms at the expense of the public sector debt (see Point 2).
2. Consolidation of the BCB's practice of offering hedge mechanisms that, more often than not, are needed due to excessive operations such as arbitrage and

carry trade. Note that there is the provision of liquidity to the foreign exchange market (FX market) for investors betting against the Real or taking advantage of Brazil's high interest rate or weak currency. This has demanded daily interventions by the BCB in the FX market via FX swaps operations at a high cost to the public sector. Thus, essentially, the BCB keeps providing liquidity for short-term speculative activities. The losses resulted from FX swaps are mainly associated with the second and third driver of monetary policy mentioned above.

One point to highlight here is the vicious circle created. Arbitrage and carry trade operations exploit Brazil's high interest rates and weak currency, attracting short-term capital flow. In doing so, they appreciate the exchange rate which leads to further pressures on interest rates. Consequently, further sterilisation operations and reserve FX swaps are needed, which again attract short-term capital flow and pressures rates up (see Point 3).

3. Policies such as sterilisation and FX swaps reinforce a cycle of short-term capital inflows and high interest rates.
4. Policy of foreign reserves accumulation creates an opportunity for domestic capitalists, both financial and non-financial, to invest in domestic financial assets and engage in operations such as carry trade, which encourage financialised practices. The accumulation also increases the implicit interest rate on the NSPD (Chapter 5). This is associated with third and forth driver mentioned above.
5. Reserve requirements policy encourages the development of financial innovations, such as repo funding, which demands higher issuance of government bonds and trade to back up these innovations, and higher interest rates. This associated with the forth driver of monetary policy mentioned above.
6. Several monetary policy tools rely on the issuance of short-term maturity government bonds and the demand for these bonds is met by a Brazilian fund industry that finances itself based on short-term instruments.
7. The DPD profile is a consequence of financial market demand and international liquidity fluctuation; it is not only the cause of economic instability and financial sector fragility.
8. The access to international financial markets with BCB's protection against exchange rate risks has provided significant gains for domestic non-financial

and financial investors, and the government bonds used for monetary policy have been a source of profit for bondholders. This has increased the regressive distributional character of monetary policy.

9. Monetary policy and its great reliance on and need for issuing government bonds has dramatically inflated the stock of government bonds owned by private financial and non-institutions.[286] In this sense, a slower growth rate of the stock of government debt or even a lower interest rate (which determines the valorisation of these stocks) may result in contraction of the pool of investible funds and/or Brazilian Real collapse, as bondholders may switch their assets into foreign currency.

Simply put, monetary policy and DPD deepen and foment financialisation because they lead to more speculative and short-term investments, generating more burden on the public sector debt, pressuring rates up and attracting more short-term capital flows. From this perspective, the dynamics of DPD from 1994 to 2014 was significantly independent of fiscal factors and, therefore, control of the debt should not have relied on fiscal consolidation. Further, the proposal of savings to cover the costs of monetary policy will only keep feeding financialised practices and maintain the existing SSP in the economy.

The financial costs of the DPD in this context have a broader definition than was discussed in Chapter 5. The monetary policy above creates a dimension of financialisation that gradually establishes a public deficit fed by a financial component based on the increasing use of government bonds by the BCB whose management practices have changed since the 1990s. A recap on the increase of repo operations, monetary base and foreign reserves, Figure 7.1, 7.2 and 7.3, help the understating the extent to which the public deficits become endogenous in this context. This was witnessed in the 1980s with the increasing speculative transactions in government bonds in the secondary market in developed economies (Braga, 1997, p. 209) and from the 1990s onwards in emerging economies such as Brazil. This ends up restricting the allegedly more dynamic role that government spending has on national income and the comeback of fiscal policy envisaged by post-Keynesian scholars is much more complicated in this scenario.

[286] In Brazil the majority of the stock of financial wealth is held in the form of government bonds (Carvalho & Ferrari, 2004). This has transferred to financial institutions the power to unilaterally limit the state's expenditures through their (un)willingness to purchase new government bonds.

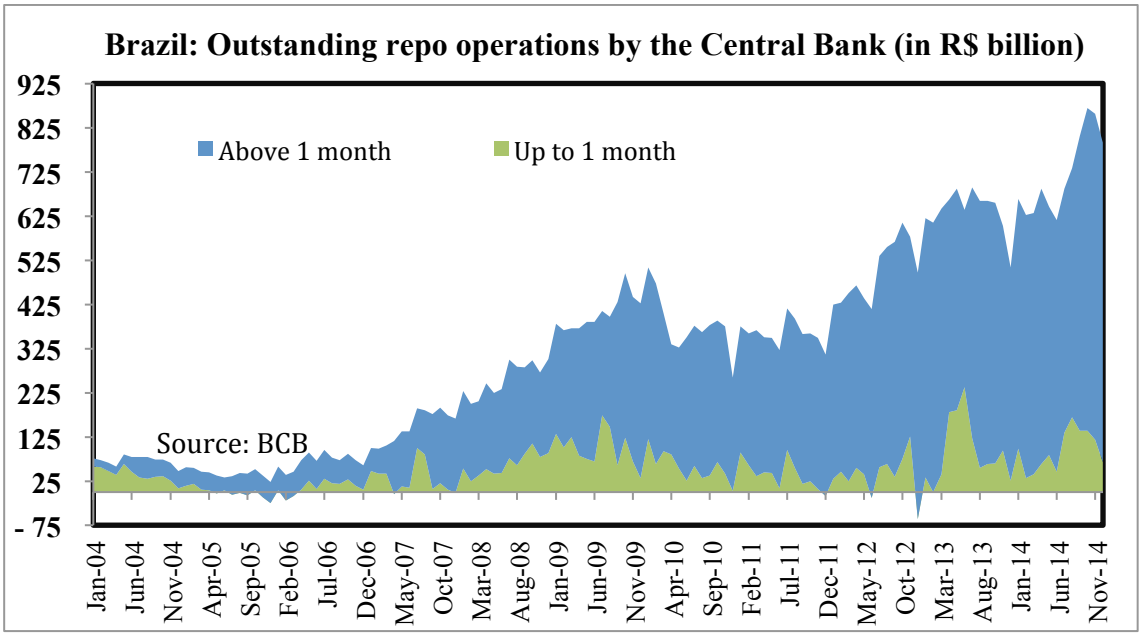

Figure 7.1: Brazil Outstanding repo operations by the Central Bank (in R$ billions)
(Banco Central do Brasil, 2016a)

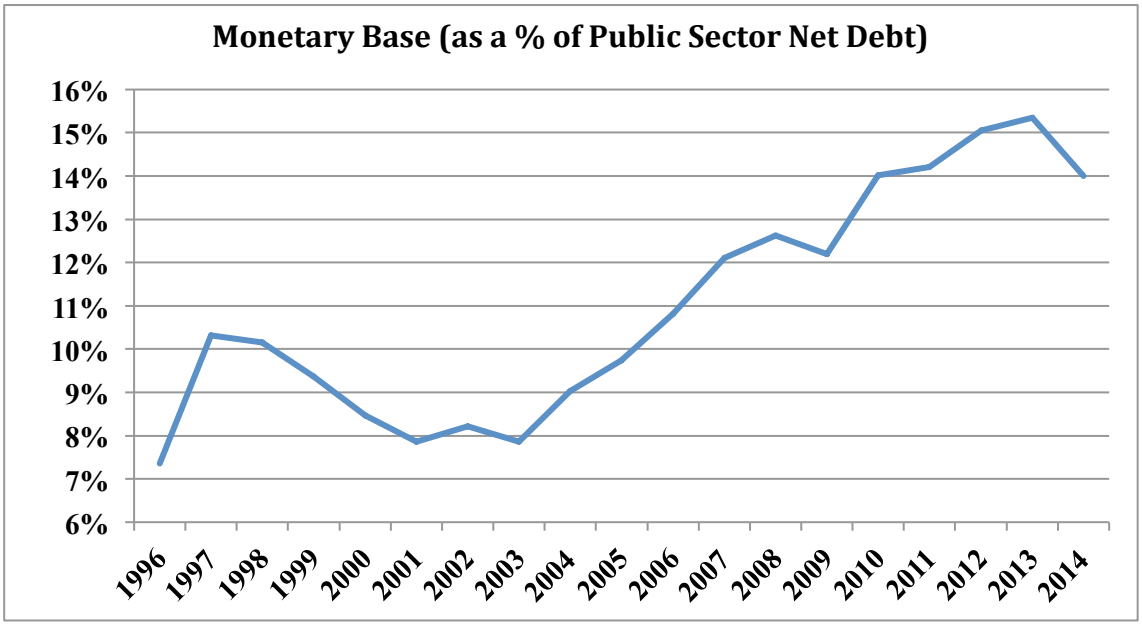

Figure 7.2: Percentage of monetary base as a total of the Net Sector Public Debt 1996 - 2014
Source: Secretaria do Tesouro Nacional (2016a)

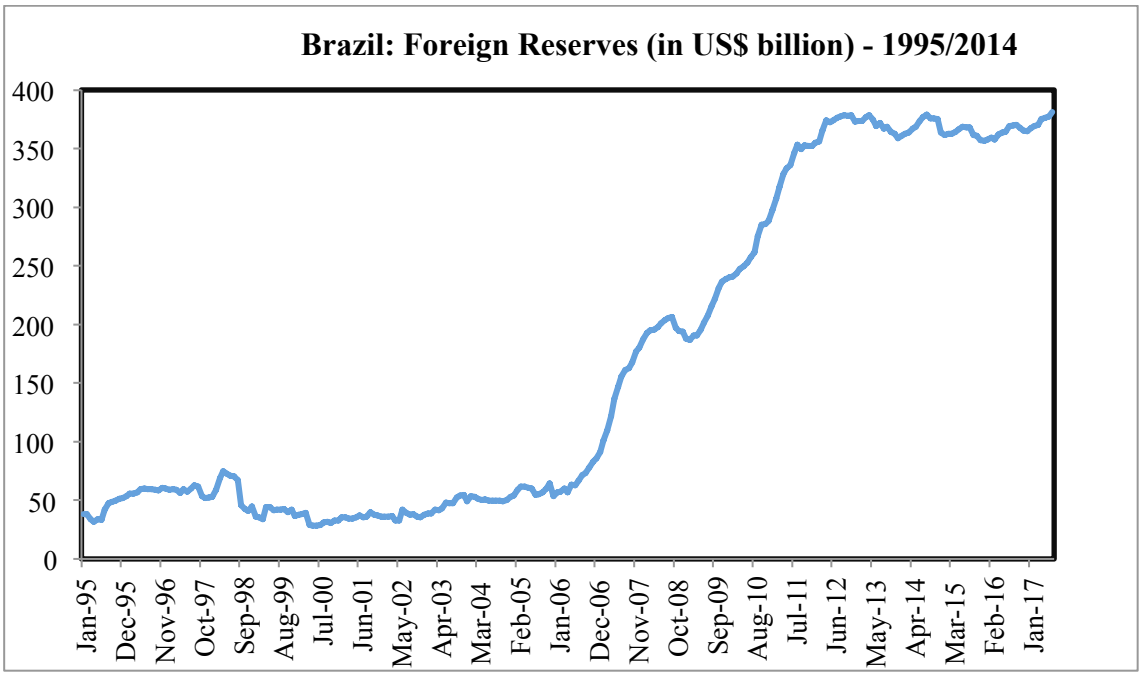

Figure 7.3: Brazil Foreign Reserves (in US$ billion) 1995 - 2014
(Banco Central do Brasil, 2016a)

The key point here is very subtle and different from heterodox economics. The financialisation process affects the Brazilian National Treasury not only due to its impact on the public debt because of high interest rates and the LFT,[287] but mainly because the BCB is gradually compelled to exercise a monetary policy that follows and adapts to the imperatives of financial markets.

Brazilian scholars such as Carvalho, Diniz, Pedrosa, and Rossi (2016) and Oreiro and de Paula (2011), for example, emphasise that the problem of the dynamics and growth of the NPSD is because the instrument of monetary policy, LFT, is indexed to the SELIC rate. Thus, if the BCB increases the SELIC rate, a quick reaction regarding contractionary fiscal policy is necessary due to the IT regime. Their solutions aim and try to avoid this contamination between monetary policy and increase of the NPSD. Unfortunately, this solution focuses on interest rates only and takes a passive view of government bonds. This is not sufficient, as will be explored in the next section.

High interest rates and financial liberalisation per se should not be blamed for the dynamics of and increase in the NPSD. Within the SSP, the state keeps inflating the DPD which itself fosters the financialisation process. Then, both the DPD and financialisation attract (short-term) capital inflows that target domestic public and private bonds, stocks and others securities and derivatives instruments. A vicious circle is created in order to support the development of a fully-fledged capitalist financial

[287] LFT is the government bonds indexed to the SELIC. See annex at the end of the thesis.

system. In this process, the state ends up asphyxiating the Brazilian economy, leading to a form of economic growth that is less intensive.

This is a difficult situation to solve at national policy level, as it is not only related to high interest rates and their multiple explicative causes, or the IT regime, or to a parasitic financial sector sucking productive resources. Further, countries like Brazil need this role played by DPD to insert their economies into the international financial system that is largely based on speculative and short-term financial investments.

This goes beyond the questions of dependency or underdevelopment per se. It is mainly the result of both the tendency of tendency towards the autonomisation of abstract wealth, which reaches its most advanced stage with the formation of fictitious capital, and the fact that the dollar became the common denominator for an exponential process of financialisation. The latter certainly gives strength to an idea of financial-market imperialism. However, as highlighted in this thesis several times, this should not be understood as restriction and constraint on monetary and fiscal policy.

In sum, the above shows that financialisation means changes in public finance and in the BCB management, followed by economic policies being used to new ends. While this section does not move towards proposals at policy level to remediate the problem, it does make the case that analyses of public debt should be complemented by the literature discussion of financialisation and vice versa. The SSP of the Brazilian economy brings together the issues of growing public debt and enhancement of financialisation. More importantly, it shows their interdependency and how the control of public debt in Brazil is more complex than has been suggested by the orthodox and heterodox literature. The next section explores this last point in more detail.

7.3. Consequences for the public sector borrowing requirement

As said in the previous section, monetary policy and its tools should be interpreted as OMOs, repo operations, hedge mechanisms (floating rate indexed bonds and FX swaps), rediscount operations and reserve requirements. This understanding intertwines the monetary and exchange rate policies. These operations have a financial cost for the public sector and respond to non-fiscal imperatives. They are frequently dependent on factors that escape state control, their impact on the public sector debt is not normally evident, and the relevant variables to estimate such impacts are not readily available.

From this perspective, there are two main problems with the analysis of public sector debt in Brazil. One is the confusion between the issuance of government bonds, whether as a tool for fiscal policy or monetary policy. When the BCB buys or issues bonds to execute OMOs or repos, for example, there is, on one hand, an expansion of government bonds in circulation which reflects an increase in the stock of the DPD. On the other hand, the BCB is not issuing bonds to finance public deficit. The issuing of government bonds in this context can happen even in the absence of either a nominal or primary deficit.

The second is the association of monetary policy costs mainly with high interest rates. The financial costs of monetary policy are indeed exacerbated by high interest rates. However, they are also the result of operations that are embedded within the financialised scenario, which more often than not implies the use of the DPD to absolve the monetary, financial and fiscal impacts of economic policies in a context of commercial and financial liberalisation, deregulated financial market and dependence on large inflows of real and financial resources. In other words, the DPD is an active tool that causes the increase in the debt stock and flows rather than being a result of public deficits due to government spending. In this sense, monetary policy and its reliance on a myriad of operations with government bonds reflects a change in the state in the context of financialisation in which economic policies are used to new ends. This was defined in Chapters 4 and 6 as financialisation of the state. Its implications, which are summarised through the concept of SSP, will not go away with low interest rates, capital control or de-indexation of government bonds to floating rates.

These two main problems take the discussion to the definition of public deficit in Brazil. The occurrence of deficit, more specifically public sector deficit, requires that the government borrow. As mentioned in Chapter 5, the IMF's (1986) manual defines the borrowing as the PSBR; the calculation of this has become increasingly important for the formulation and implementation of economic policies. However, although the PSBR presumably measures the difference between consumption and investment expenditures of the government and its tax revenues (which in Brazil is, basically, the variation of the NPSD), the IMF methodology includes several non-fiscal factors in the PSBR calculation, as showed above when discussing Identity 1 and 2. Also, in the Brazilian case, the contagion of non-fiscal factors is even greater due to a broader concept of central government through the monetary authority account, which includes,

for example, monetary base and rediscount operations in the PSBR calculation (Morais & Saad-Filho, 2007).

Unlike the heterodox literature that engages with the PSBR concept under the nominal and operational perspectives, with a focus on the financial costs of monetary policy and on high debt service, this thesis argues that non-fiscal factors should not be included in the PSBR. The main reason for this is that these non-fiscal factors are the result of incorporating the impact of exogenous shocks and costs of monetary policy into the calculation. However, these are wholly unrelated to the government's fiscal policy stance but are related to financialisation and the monetary policy that follows it. In this sense, the calculation of the PSRB in Brazil is misleading.[288]

Although this initially seems to be a methodological problem, the issue is actually related to the understanding of monetary policy and the monetary regime in the post-1970s historical context. As previously explained, since the 1990s the dynamics of Brazil's NPSD (i.e., the way it grows) are found in the execution of the monetary and exchange policies and in the rise of financialisation. This exacerbates the problem regarding the distinction between public sector deficit and fiscal deficit, which follows a distinction between non-fiscal factors and the fiscal source of the deficit.[289]

A clear and direct distinction and acknowledgment of the non-fiscal factors exposes their magnitude in the calculation of the PSBR and the extent to which they became responsible for the greater part of the NPSD increases. The point here is not a dispute between monetary and fiscal policy or to rescue monetary policy's 'true' functions, but the relationship between monetary policy and public debt within the context of financialisation.

One view is to associate the impact of exogenous shocks and the cost of monetary policies with the increase in the NPSD and high interest rates in the context that emerged in the 1990s – as is frequently done by the heterodox approaches. Another is to understand monetary policy and DPD as the result of both the result of reforms and economic policies that aimed to transform Brazil into an emergent financial power and a channel through which the Brazilian state ends up deepening the financialisation process. It is this two-way street that drove the increasing need for OMOs, especially repos and reverse repos, discount rate operations, FX swaps and significant accumulation of foreign reserves.

[288] See also Morais and Saad-Filho (2007), p. 165.
[289] Scholars such as Terra (2011), who analyses public debt in Brazil, consider the public sector deficit to be synonymous with fiscal deficit.

The Real plan exacerbated the magnitude of the non-fiscal factors influencing the public debt, but the plan itself was part of a series of reforms following an international tendency regarding the changes in the capitalist economy that started in the 1970s. In this sense, the contagion effect of non-fiscal factors in the PSBR calculation is greater because the government exercised statecraft in order to manage the accumulation of capital under financialisation, which implicates monetary policy assuming different functions. This does not change with, nor is it restricted by the IT regime which, in fact, helped to implement and consolidate these functions that monetary policy assumes in a financialised context.

Although the majority of the literature on public debt in Brazil describes the channels through which the NPSD increases – and, therefore, explicitly acknowledges that the tools of monetary policy often incur costs for the public sector debt – the theorisation of monetary policy is stuck in a nostalgic view of the role of monetary policy in i) managing the interest rate to keep asset prices aligned so investors can choose how to use their resources, and ii) managing the public debt and the trade-off between lengthening the maturity and increasing the cost to avoid default and properly indicate levels of solvency of the public sector debt (Carvalho, 1999, p. 275; Hermann, 2002, p. 5 and 13; Terra et al., 2009, p. 10).

In this context, critiques of monetary policy may target, for example, the issue of a contractionary monetary policy that results from a focus on price level stabilisation, as these prices serve as indicators in the free markets for investors' decisions. Critiques then encompass the inflexibility that the macroeconomic policies of the 1990s and the IT regime impose on monetary policy (Carvalho, 2008; Mollo & Saad-Filho, 2006; Morais & Saad-Filho, 2005), which more often than not stops it from acting to stabilise economic cycles (Hermann, 2002; Terra, da Silva, & Pires, 2012; Terra et al., 2009, p. 29).

When it comes to tackling the debt to GDP ratio (D/Y), post-Keynesian scholars emphasise, for example, the need to reduce the interest rate and increase taxes and GPD (Hermann, 2002; Terra et al., 2009). The most common proposals to reduce the D/Y debt and improve its profile, however, include the reduction of the SELIC rate, an increase in debt maturity, and changes in the indexation of government bonds from SELIC (LTFs) and exchange rate indexed to, for example, inflation indexes (Carvalho et al., 2016; Pires, 2005; Terra et al., 2009), overlapping with proposals following the mainstream economics tradition (Bevilaqua & Garcia, 2000; de Mendonça, 2004).

Capital control and the disentangling of monetary and exchange rate policy are also popular (Belluzzo & Carneiro, 2004; Carneiro, 2006). There are also proposals suggesting a reduction of the demand by the fund industry for short-term government bonds and of repo operations (Bastos, 2015a, 2015b). Finally, some suggest the replacement of sterilisation policy by reserve requirements (Bastos, 2015a).

In this context, the non-fiscal costs of monetary policy are widely accepted and their inclusion in the PSBR calculation happens without proper criticism. These critiques and proposals do not directly address the issue and implications of using government bonds for speculative trade in the secondary market and the derivatives contracts of the BCB, which pressure the SELIC and attract short-term capital flows in the first place.

To a certain extent, one can argue that there is an implied consensus and acceptance that every monetary policy incurs fiscal cost, and this cost becomes a broad concept which includes debt service, issuance of new government bonds, cost of foreign reserves accumulation and impacts resulting from hedge mechanisms, such as floating rate index bonds and FX swaps. However, this consensus ignores the distinction between fiscal and non-fiscal factor sources of the public deficit, which is extremely important in a financialised context. Further, it often ignores the fact that part of what is considered the fiscal costs of monetary policy is not even integrated into the government budget.

In the specific case of sterilisation policy, for example, it implicates in public sector indebtedness without any limit established by law or any *ex ante* control. In short, it is a fiscal cost that is not part of the public budget. Moreover, these solutions do not even question that within the theories of public debt there is no economic reason or theory that justifies the use of government bonds as a privileged hedge instrument, i.e., without risk, in times of uncertainty in the foreign and financial markets. In Brazil, the only argument that can justify this government decision is political. Thus, unlike Leeper's (2010) argument, monetary policy is not scientific and can also be understood, using his own words, as speculative and grounded more in politics than economics as fiscal policy. The difference is that monetary policy shows a political acquiescence of the state to financial markets.

The weight of non-fiscal factors in the DPD is not a temporary issue that will go away with the reduction of government bonds indexed to the SELIC rate, a reduction in the SELIC itself or with the replacement of sterilisation policy by reserve requirements.

As discussed in Chapter 6, banks have developed ways to work around reserve requirements by using even riskier financial instruments, i.e., repo funding, that often result in more government bond issuance and high rates.

Regarding reducing the SELIC indexed government bonds and the SELIC rate, the work of Dupita, Ferreira and Robotton Filho (2004) is telling. Indeed, the legacy of the period of high inflation and the existence of a dual-currency system left the Brazilian government bond market with a particularity, namely, a significant amount of short-term debt instruments indexed to floating rates. Additionally, the needs of debt rollover, sterilisation policy and FX swaps reinforce these features.

However, this is not the entire story. There is also the fact that the demand for both short-term overnight-SELIC debt instruments and long-term fixed-rate debt instruments are more directly linked to speculative motives than any other factor.[290] The majority of the demand for the former comes from the investment fund industry; and, though demand for the latter is scarce, when it does come, it comes from fund-fixed income investment (RF), banks and leveraged funds, such as multi-market funds and foreign hedge funds.

Interestingly, the demand for fixed-rate long-term government bonds instruments is also greatly speculative as funds buy these instruments expecting to obtain capital gains from *a cut* in interest rates. That is, these funds also gain from a fall in interest rates. Further, very often the demand for fixed-rate long-term debt instruments by the traditional fund-fixed income investment is not a "legitimate demand", as these titles are generally converted into floating-rate through derivatives, which then leads to a concentration of short-term floating-rate debt instruments in their portfolios (Dupita et al., 2004, pp. 6–7, emphasis added). That is the kind of role that government bonds play in the secondary market.

The above does not mean constraints on monetary policy and a symptom of *inefficiency* of the fiscal and monetary policies, as is frequently argued by the heterodox approaches. Since the 1990s the public sector has undergone structural changes that gave the DPD a very specific role linked to the fiscal and monetary policies that are intertwined with the financial markets' functioning.[291] In this context, fiscal and monetary policies are not inefficient; rather, they play a more complex role in peripheral countries within a context of financialisation.

[290] See also Hardie (2012).

[291] Although not directly explored in this thesis, this fact is also related to Studart's (1995) argument that in Brazil financial markets are not so developed and are fragile. Therefore, their functioning occurs under continuous and substantial government assistance.

Equally important, the mode of fiscal adjustment and management adopted in Brazil since the 1990s, has not failed. More accurately, the influences and determinants of the non-fiscal factors affecting the calculation of the PSBR, which is the result of, and is exacerbated by, the development of the relationship between monetary policy and public sector debt within a context of financialisation, have not been acknowledged.

This, in turn, means that the state subsidises the accumulation of financial capital, which at a macro and more general level happens at the expense of productive capital and the creation of employment and leads to moderate growth and the stop-and-go growth dynamic.[292] Despite not being directly discussed in this thesis, the drainage of productive capital and monetary resources through the tax system to pay for increasing government financial expenditures, especially in a context of primary surpluses, reflected the financial priority of this historical moment and the state policy in this context. At a more general level, the impact of these operations on the public sector ensures that their costs are effectively borne by society as a whole, which contributes to internal differentiation in Brazil, reshaping class structure and the distribution of income and wealth.

Overall, the reason why the DPD is the main component explaining the upward trend and dynamic of NPSD is the financial cost of monetary policy – the result of the use of government bonds and the public sector deficit to manage financial markets. In this sense, the failures of the fiscal adjustment programs implemented in Brazil should neither be associated with the fiscal program itself nor with a lack of coordination between the fiscal and monetary policies. Rather, it should be associated with the new forms of state intervention in the context of financialisation.

The DPD, as one of the most important tools available to the state authorities, necessarily count with governments issuing debt not to finance expenditures but to support the development and liquidity of a domestic fixed-income market. This is the role of monetary policy in this historical moment, which makes impossible proposals based on *zero PSBR*, as encouraged by Delfim (2005), Giambiagi (2006) and Pires (2007). Further, it means a revaluation of the extent to which monetary and fiscal policy can generate dynamic economic growth in a financialised context.

[292] See, for example, the works of Araújo, Bruno and Pimentel (2012), Carvalho and Ferrari (2004), Medialdea, (2013) and Saad-Filho and Morais (2002).

7.4. Conclusion

This chapter identifies the drivers of monetary policy in Brazil from 1994 to 2014, divided into four sub-periods. From 1994 to 1999, the drivers of monetary policy were found in the policy of sterilisation and hedge mechanisms. From 1999 to 2004, the need to attract capital flows and contain exchange rate depreciation under an IT regime presented as the drivers of monetary policy hedge mechanisms, based on floating rate indexed bonds, but later also FX swaps. From 2004 to 2010, they were based on reverse FX swaps and foreign reserve accumulation. From 2010 to 2014, the drivers of monetary policy essentially focused on the use of reserve requirements and the maintenance of foreign reserve accumulation and management of the interest paid on repos and FX swaps.

These drivers show the crucial role played by the DPD over the years, and also help to elucidate that monetary policy in Brazil is subsumed, rather than submitted, to the needs of financial markets and their financialised practices. The relationship between monetary policy, DPD and financialisation places the Brazilian economy in an SST situation. The reliance on foreign capital and demands from financial markets – including financial market behaviour and investor preferences, which are theorised around the concepts of risk and cost – have required a stable and liquid government bond market and BCB management practices that satisfy those preferences. This has acted as an incentive for financial and non-financial institutions and for foreign and domestic capital to seek large, secure and rapid benefits by purchasing indexed, guaranteed public debt.

The state's monetary policy is transformed in an attempt to keep the country's economic variables in line with the economic fundamentals. The result is an increase in speculative behaviour and search for capital gains through, for example, arbitrage or carry trade operations. These financialised practices further contribute to exchange rate pressures and crises (for example, in 1999 and 2002), which then compel the monetary policy to become creative and use the DPD as a privileged hedge instrument to counteract the uncertainties of the financial market. Further, not only are these demands frequently influenced by speculative factors, they are also submitted to the monetary policy of developed countries, especially the US and EU, and to international financial cycles of expansion and retraction.

This leads to the reassessment of the contamination of fiscal and non-fiscal factors in the calculation of the PSBR. Non-fiscal factors included are the impacts of the

monetary authority's decisions and its seven tools for implementing monetary policy: i) cost of the foreign reserves; ii) OMOs; iii) external transactions followed by sterilisation policy; iv) changes in the value of the net international reserves due to variations in the exchange rate; v) net cost of the rediscount; vi) cost of reserve requirements, and vii) cost of FX swaps operations. In this sense, most of the contagion of non-fiscal factors in the calculation of the deficit represent the costs of BCB monetary policy being involved with financialised practices, and have a completely different dynamic and cost than payment of interest on the debt or government spending.

Unfortunately, heterodox approaches to public debt in Brazil uncritically accept that monetary policy incurs fiscal costs. These costs are then broadly aggregated together as debt service, issuance of new government bonds, cost of foreign reserves accumulation and impacts resulting from hedge mechanisms, such as floating rate indexed bonds and FX swaps. This is complicated, particularly because the non-fiscal factors affecting the calculation of the PSBR are the result of, and exacerbated by, the development of the relationship between monetary policy and public sector debt within a context of financialisation. It is essential not only to increase the transparency of the calculation of the PSBR in Brazil, but also to expand public debt theories to cover the transformations in public finances since the 1990s from the perspective of the financialisation process in this economy.

Chapter 8 – Conclusion

8.1. Public debt and monetary policy

This thesis presents a detailed analysis of the changes in public finance and particularly in public debt in Brazil from 1994 to 2014. The period chosen was not random: the aim was to explain and understand these changes from the perspective of the transformations in the global economy that became more evident during the 1970s and started being more systematically implemented in developing countries during the 1980s and, as in the case of Brazil, the 1990s. These transformations involved the internationalisation of finance together with the rise of financialisation.

The first challenge faced by this research was to navigate through the discussions of public finance. Clichés aside, this topic is vast, ranging from public budgeting, expenditure, revenue and debt to fiscal federalism and policy, and the role of government in economic activities. Although it is quickly evident that some of these topics are interrelated, one may be surprised to realise the extent to which each of them has become an independent field of research with its own extensive literature. Fortuitously, for this thesis, its focus was on public debt and the role of government in economic activities, which were (and still are) very much related thanks to the Keynesian Revolution in the 1940s.

The theoretical developments after the Keynesian Revolution accomplished more than just linking economic activities with public debt. These developments gave a different perspective to the discussion of public budget and public expenditure and, in doing so, they associated fiscal policy with government spending, and created a debate around more efficient ways to finance government spending.

The meaning of efficient can only be fully understood when it is clear if the spending is tax-, money- or bond-financed; however, making this distinction is not easy as these three forms of financing are intimately connected to each other. In any case, once attempts to make this clear are made, the discussion of 'efficient' can be framed in terms of how government spending impacts AD and economic variables considering the tax burden, crowding out of private effect and debt neutrality.

The discussion of government bonds in midst of these theoretical developments is intrinsically linked to fiscal policy, impacts on AD, public indebtedness and debt burden. However, a look at the data around the object of study by this thesis shows that the major component increasing the net public sector debt (NPSD) in Brazil is the

domestic public debt (DPD). More importantly, the data shows that the drivers of this component are found in the execution of monetary policy.

Returning to the theories of public debt to find an explanation for the Brazilian situation shows that the entry of monetary policy in the discussion of public debt happened more systematically only in the 1970s. Monetary policy gained more space in the theories of public debt with the rise and fall of Friedman's monetarism and then with the Austrian School's monetary approach formalised in the New Consensus in Macroeconomic Consensus (NCM). Several of these studies not only examined the expansionary demand effects resulting from monetary policy, but also elaborated theories regarding, for example, inflation targeting and output stabilisation, which were then understood as central banks' clear objectives. Monetary policy would also be marked by modeling dynamic behaviour and expectations, transmission mechanisms and uncertainty in policymaking.

Monetary policy's inclusion in these debates is much associated with the management of the macroeconomic imbalance of capitalist economy in a similar fashion to that mentioned above for fiscal policy. That is, impacts on AD, inflation, control of monetary supply and manipulation of interest rates are central to this inclusion. Given the different schools of economics, the discussion was then followed by the use of monetary policy to keep interest rates low, favouring investment, and managing government bonds' profile and maturity.

The public management literature (PDM) in the 1990s expanded the role of monetary policy further. The importance of developing domestic bonds markets and the concerns with the trade-off between risk and the cost of financing the government are both dependent on monetary policy and an intervention, using government bonds, in the domestic financial markets.

Yet, despite both the adoption of the IT regime in 1999, which supposedly gives more flexibility for monetary policy, and Brazil's official adoption of the IMF/WB government bond market development programme in 2001, orthodox and heterodox economists' critiques alike highlight monetary policy in Brazil as inefficient.

Orthodox economists, who are very close to the PDM literature, argue that the government is not able to change government bonds' indexation due to its failures in controlling the exchange rate in a context of financial liberalisation. In this view, the Central Bank of Brazil (BCB) also fails to supply long-term government bonds, which is met by a lack of demand for long-term government bonds by private agents.

Heterodox economists argue that the monetary regime in Brazil focuses mainly on price stability and impedes the use of monetary policy as a tool for stabilisation of economic cycles, and that further, the function of debt rollover played by the SELIC rate contaminates the monetary policy instrument.

Thus, the explanation behind the fact that, in Brazil, monetary policy is responsible for the increase in the public debt is not clear if answers are sought in the traditional theoretical frameworks. For this reason, this thesis argues that the traditional theories of public debt have a shortcoming regarding their understanding of the role that government bonds can play in capitalist economies.

At the same time that the Keynesian Revolution opened a new and more complex world for public finance, it restricted government bonds to fiscal policy and an existence as a passive result of government spending. Monetary policy, once explored from the perspective of theories of public debt and PDM, makes the use of government bonds for central banks' operations clearer. However, unlike the case for fiscal policy, any focus on or concern about the debt burden resulting from monetary policy tools is feeble and, in the case of PDM, almost non-existent.

One can argue that a study of central banks and monetary policy would have been much more efficient in providing answers for the dynamics of the public sector in Brazil. This is certainly a limitation of this thesis. However, two points should be noted. Firstly, the research task was to study public debt. Thus, needless to say, it should, as it did, start with a literature review of theories of public debt. Secondly, since the 1970s monetary policy has systematically gained more space at policy level, and this implied a more relevant role for and changes in central banks' management. The consequence has been a clear cost of monetary policy for the public sector debt, either through new issuance of government bonds, trade of these bonds or use of financial instruments that impact the public sector debt. Therefore, the puzzle is why these aspects have not been properly added to the broad field of public finance.

In Brazil, heterodox scholars are correct to argue that the increase in the NPSD is due to the financial cost of monetary policy. This cost mainly refers to the debt service resulting from high interest rates. In their analyses, it is uncritically stated that every monetary policy incurs a fiscal cost. Thus, essentially, issuance of new government bonds to cover interest payments in a context of primary surpluses, issuance of government bonds for sterilisation policies, open market operation (OMOs), the trading of government bonds to realise FX swaps, repos and hedge mechanisms are

conjointly understood as the fiscal cost of monetary policy. And, more than once, all these aspects are simply explained in terms of the financial costs of monetary policy.

However, this thesis argues that there is no economic theory of public debt that either clearly explains or considers in terms of the public budget this type fiscal cost of monetary policy. Further, the thesis argues that there is no theory of public debt that either explains or justifies the use of government bonds as hedge mechanisms against the uncertainties that arise in financial markets.

Several studies in Brazil assume public sector deficit and fiscal deficit as synonymous. This is wrong as, in the first case, monetary authority decisions – for example, OMOs, changes in the compulsory bank reserves or the use of FX swaps operations – are the source of non-fiscal factors affecting the nominal balance of Brazil's central government. These non-fiscal factors are the result of the costs of monetary policy, which are wholly unrelated to the government's fiscal policy stance. Thus, differing from the heterodox scholars, the thesis argues that analyses of public debt in Brazil should not engage uncritically with the public sector borrowing requirement (PSBR) concept under its nominal and operational perspectives.

The lack of proper theorisation on monetary policy and public debt becomes a more complicated matter when considering the rise of financialisation. The transformations since the 1970s, which contributed to monetary policy prominence, also made more evident the relationship between monetary policy, government bonds and public debt. This evidence is not related to the state bailing out banks and, as a consequence, increasing the public sector debt. Monetary policy has been responsible for a large share of the increase in the public sector debt due to the increasing need for monetary policy tools such as sterilisation, OMOs, the use of government bonds to sustain the securitisation of the operation in the financial market, and the use of financial innovations, such as FX swaps, by the central banks.

The issue is that communication between theories of public debt and financialisation is scarce. This takes the concluding remarks to the second challenge faced by this thesis.

8.2. Fictitious capital, financialisation and monetary policy

The understanding of government bonds as titles to fictitious capital means two main things for this thesis. Firstly, government bonds are an important component of the credit and financial system, as all titles to fictitious capital are. Here, the issue is not

about the Keynes or Pigou effect, or their synthesis. Fictitious capital mobilises capital, shifts resources across circulation of money and capital, facilitates new investment, finances production and consumption, raises profitability, and even dislocates the threat of crisis through debt-financed consumption or public sector spending. It does this while extracting part of the surplus value produced by the working class through the use of fancy, innovative financial mechanisms.

The tradable feature gives these titles the ability of having their mobility tending to evade the conditions of the circulation of capital. Further, a hoarding function can also be carried out based on titles of fictitious capital, which complements and is intrinsically connected with banks' credit practices. From this perspective, the issuing, selling, trading and holding of government bonds play a crucial role in financial markets. This is even more important considering that government bonds connect the public and the private sector while guaranteeing future resources to finance national debt and providing a highly liquid security to support private financial markets.

It is argued that, as titles to fictitious capital, government bonds' functions are not restricted to covering public deficit or impacting AD. They can be used in several different ways in financial markets and that is why these bonds are active tools for governments that use them to intervene in and manage financial markets in order to control economic variables, such as exchange rates. This is essentially done through monetary policy tools. By the same token, bondholders, ranging from banks, pension funds and firms to individual investors, can use these bonds to regulate their reserves, temporarily park available funds, obtain liquidity at short notice and move seamlessly across different forms of fictitious capital.

Thus, the thesis also argues that, at a more general level, the trade with government bonds in the secondary market is often associated with these functions and this is why there is a particular demand for short-term and high yield bonds; there is a great deal of speculation with these bonds and their use backing up transactions in these markets. This reveals states and their monetary policies to be intrinsically linked to the dynamics and development of financial markets. Thus, in capitalist economies with developed financial systems, public debt is unlikely to be paid off.

Although this thesis progressed considerably in examining and advancing the understanding of fictitious capital, one of its limitations is that it did not develop a proper theoretical framework to analyse government bonds. The debate on fictitious capital and public debt are part of two different streams within Marxism which do not

communicate which each other sufficiently. Aside from a few exceptions examined in this thesis, the debate on public debt more generally within Marxism is outdated and also under the influence of the Keynesian Revolution, revolving around how systems of taxation drain surplus value from society, an implicit notion of the crowding out effect, or around types of expenditure, which leads to the discussion of Marx's assumption that the sums advanced by government bonds are spent unproductively.

Overall, in the same way that it is very difficult to examine government bonds separately from bond-financed deficit and impact on AD when considering the literature on public debt, it is also difficult to examine public debt within the Marxist literature without touching on the issues of taxes, types of government expenditure, and extraction of surplus value from society. Marxist literature says very little about government bonds as a tool of monetary policy and the following implications.

That is why it was necessary to turn to the discussion of fictitious capital more generally. However, from the perspective of fictitious capital, again, despite a few exceptions, the focus by the Marxist literature is on how government bonds become a profitable investment in a financialised scenario. Although not much explored by this thesis, here the issue of classes appears in terms of a bondholder class and a productive capitalist class. The bondholders are part of the parasitic class of rentiers who are responsible for the malaise in production, and their growth and strength drive capitalism close to the abyss. In this light, a dichotomous, simplistic and consumerist view of financialisation gains strength, which this thesis is in complete disagreement with.

This moves these concluding remarks to the issue of financialisation. This thesis argues that financialisation is essentially the proliferation of titles of fictitious capital, which, despite several changes in the process of capital accumulation, happens concomitantly with capital valorisation in the productive sphere. However, changes in capital accumulation under financialisation are not the direct concern of this thesis. The main issue for this research is how to relate this to the expansion of fictitious capital with the development of government bond markets. Approaches to financialisation that operate in a piecemeal fashion or see it as synonymous with financial globalisation and/or capital liberalisation present shortcomings in explaining the changes in monetary policy, central banks and government bonds.

The thesis argues that within the financialisation literature there is a lack of discussions about public debt. In general, monetary and fiscal policies make their appearance in the analyses of financialisation from the perspective of how government

policies are less efficient or constrained by free capital flows or capital mobility. When the debate on public debt is included it often appears from the perspective of public indebtedness resulting from the financialisation that occurs when the state steps in to afford its costs and/or when profligate behaviour requires large-scale expenditure cuts to placate the bond markets.

This is not sufficient. As titles of fictitious capital, government bonds assume a broader role as an instrument for devising monetary policy and consolidating the financial system mainly because these bonds are essential to the central banks that use them daily to control market liquidity and stabilise the currency. Further, government bonds, in a context of floating exchange rates and in the presence of a number of national currencies, are used to mitigate and protect the country against investor speculation, in general, by accumulation of foreign exchange reserves. This is not about constraints, it is about the use of government bonds to manage and keep the financial market stable and liquid.

Thus, the literatures on both public debt and financialisation present shortcomings for the analysis aimed for by this thesis. This is the case for Brazil as well. Albeit along different lines, the majority of the works examining financialisation in Brazil identified an increasing DPD since the mid-1990s; this is not surprising considering that these bonds are titles of fictitious capital. However, with a few exceptions discussed in this thesis, there is no great systematisation explaining the expansion of government bonds other than the arguments of how these bonds are profitable financial investments or that the state and its economic policies are submitted to the imperatives of financial markets.

From the side of analyses on public debt in Brazil, commercial and financial opening, the relationship between monetary policy and exchange policy, and the high interest rate explain the increases in the DPD. The increase is mainly associated with how the Brazilian economy has been integrated in the global economy. A monetary policy obsessed with controlling inflation has afforded this integration and generated not only a large debt service burden but also fiscal costs for the public sector debt due to, for example, sterilisation policy and foreign reserve accumulation. In this context, the critiques of heterodox scholars on the limitations and constraints of fiscal and monetary policy in Brazil are vast.

Although this thesis does not strongly disagree with the literatures on financialisation and public debt, it does argue that they are both insufficient. In order to

understand the dynamics of the DPD in Brazil since 1994 is necessary to make it clear that there is a relationship between monetary policy, public debt and financialisation.

The dynamics of the debt is found in monetary policy and the use of tools that are gradually and increasingly becoming more demanded in the financialised context. This is because the state, via monetary policy, uses government bonds and financial innovations to absorb the risks and fluctuations arising from the volume and complexity of financial assets that these financial markets produce, accumulate and trade. There is an increasing involvement in financial transactions through the myriad of new financial instruments, which enable rather than constrain the state in the exercise of its statecraft within the contradictory demands of growth, stability and distribution under financialisation. This means that the DPD in Brazil is not a reflection of fiscal policy, but rather the subject of the financialisation process.

This is confirmed by looking at the drivers of monetary policy from 1994 to 2014. From 1995 to 1999, sterilisation policy and the rise of hedge mechanisms based on SELIC and US dollar linked bonds; from 1999 to 2004, hedge mechanisms and the rise of foreign exchange swaps (FX swaps); from 2004 to 2010, reverse FX swaps and foreign reserve accumulation; and, from 2010 – 2014, foreign reserve accumulation, FX swaps, reserve requirements, and management of the interest paid on repos and FX swaps.

It is not a coincidence that since 1994 the dynamics of the NPSD in Brazil has been found in the execution of the monetary policy. Financialisation increases the need for and enhances the role of the monetary tools mentioned. More importantly, these drivers are very much related to the non-fiscal factors contaminating the PSBR in Brazil. Thus, there is in Brazil an endogenous deficit resulting from monetary policy, which is exacerbated in the financialisation scenario. This takes the concluding remarks to the discussion of the implications of this for the Brazilian economy.

8.3. Implications

The Brazilian state and its monetary policy have led the economy into a speculation stabilisation trap (SST) in which the goal and tools of monetary policy result in the offering of an attractive, secure and profitable source for financial short-term and speculative investments. This reinforces high interest rates and the continuous inflow of short-term volatile capital flows. In addition, this SST happens at great expense to the public sector debt.

The increasing of financialised practices in the economy and the increasing use of financialised practices by the state leading to the SST shows how proposals to control the debt to GDP ratio and improve the public debt profile can be ineffective and, to a certain extent, even naive.

For example, measures to develop the government bond market in Brazil, which have made this market one of the most liquid among emerging economies, have encouraged the entry and exit of non-financial and financial investors, domestic and foreign, who can easily speculate against the Brazilian Real and search for financial gains via high interest rates and investment in domestic financial assets. This has, in fact, limited the Brazilian borrowing capacity and exacerbated exchange rate volatility.

BCB's provision of liquidity to the foreign exchange market via allegedly modern tools (FX swaps) has encouraged short-term capital inflows, arbitrage and carry trade operations, which pressure rates up and contributes to appreciation of the exchange rate. This is exacerbated by the BCB's sterilisation policy that has led to banks engaging in risky and speculative activities (such as, again, carry trade and currency arbitrage).

The idea of de-indexing bonds from SELIC or from floating rates will not stop these practices. As discussed, very often the demand for fixed-rate long-term debt bonds by traditional fund-fixed income investment is aimed at converting these bonds into floating-rate through derivatives, which then leads to a concentration of short-term floating-rate debt instruments.

The same is valid for measures regarding capital control; financialised practices are already rooted in the domestic capital as well. In fact, for example, repo operations in Brazil are very particular due to the SELIC/IT regime and the lack of a proper inter-bank market creating liquidity among the banks. As a result, banks prefer to have BCB repos in their portfolios as a way to keep their liquidity. In times of crisis and credit contraction, the demand for them is even greater.

Lowering the interest rate will contribute to relieving the debt service burden, but cuts in interest rates are also used in a speculative way by fund-fixed income investment, banks, and leveraged funds, such as multi-market funds and foreign hedge funds, as they buy these bonds expecting to obtain capital gains from a cut in interest rates.

The substitution of foreign reserve accumulation, due to its high cost, by reserve requirements has fomented the use of repos to circumvent these requirements; this then

encourages the use of government bonds to back these repos, as they are a source of financial instability for the domestic banking system.

In sum, if financialisation is not considered, heterodox scholars will continue to envisage the return of a particular type of fiscal and monetary policy that can lead Brazil towards the path of sustainable growth. However, this return may not be possible, as these policies are used for different ends in a context of financialisation. The possibility of an active expansionary policy may be very complicated in a context in which the PSBR has an endogenous growth due to monetary policy tools whose use is enhanced in the context of financialisation. In this sense, it is puzzling that the proponents of expansionary fiscal policy in Brazil are the ones who generally assume that public fiscal deficit and fiscal deficit are synonymous.

This is not to say that economic growth is not possible, but that a radical reinterpretation of fiscal and monetary policy is long overdue. Proposals to create savings to afford monetary policy will only result in the continued fomenting of financialised practice in the economy. In this sense, given the rise of financialisation in this country and the core role that DPD has in it, any measure regarding public debt has to be accompanied by regulations on underwriting finance.

8.4. Future research

Three potential further avenues of research arise from this thesis.

One would be to further explore the non-fiscal factors affecting the calculation of the Brazilian PSBR and their link and enhancement due to financialised practices. Seven non-fiscal factors were identified: i) cost of the foreign reserves; ii) OMOs; iii) external transactions followed sterilisation policy; iv) changes in the value of the net international reserves due to variations in the exchange rate; v) net cost of the rediscount; vi) cost of reserve requirements, and vii) cost of FX swaps operations.

Most of the contagion of non-fiscal factors in the calculation of the deficit represents the costs of central bank monetary policy; not all are new monetary tools, so it is necessary not only to make these factors transparent, but also to make their relations with the developments that follow with financialisation clearer. Calculations using data associated with monetary authorities' decisions covering specific periods would therefore be extremely relevant.

A second potential avenue is to assess the extent to which the IMF and World Bank's literature on public debt management promotes and supports the strengthening

of local bond markets to enhance their investability and attract new investments while downplaying the constraints that financial globalisation imposes on developing countries and their domestic financial markets.

The IMF/World Bank guidelines for public debt management encourage the development of government bond markets in developing countries, arguing that this is an essential ingredient to ensure sustainable growth, support the productive sector and fight poverty. However, a detailed assessment of the IMF and World Bank policy prescription exposes their theoretical commitment to monetary policy at the expense of state activism through fiscal policy – despite the fact that the latter is considered to be crucial for developing countries. It would be relevant to investigate the political economy factors behind why the IMF/World Bank PDM guidelines restrict the role of fiscal policy, promote monetary policy primacy and overlook the constraints imposed on monetary policy in a context of financialisation. The direct policy objective behind this type of research is to understand how effective these guidelines are in promoting and supporting long-term growth according to developing countries' reality and particularities in the current global financial environment.

A third potential avenue of research is how monetary policy and central banks are examined within public finance more broadly. This would be relevant either from the historical perceptive or from the perspective teaching economics to undergraduate students. Textbooks teaching public finance have become an applied field of microeconomics in themselves and the more recent the book, the more likely it is to ignore macro public finance. More astonishingly, within the few textbooks covering macro public finance, not all of them included the issue of public debt, let alone that of public debt and monetary policy. Some contain an excessive emphasis on taxation and expenditure theory (considered as equivalent to public good theory, which followed Samuelson's standard formulation) and tax theory. This is definitely a failure in the teaching of public finance, which may impede the understanding of the broader role that government bonds play in the economy.[293]

[293] The current public finance textbooks considered are: Fisher (2009), Gruber (2010), Hyman (2013), Musgrave and Musgrave (1989), Rosen and Gayer (2007), and Stiglitz (2000). This choice was based on the syllabi for public finance courses of the top the graduate programmes in economics in the US according to the 2009 US News & World Report ranking.

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Annex: Structure of the Brazilian public debt

The Brazilian federal debt is the debt incurred by the National Treasury to finance the federal government budget, including the refinancing of the debt itself and transactions with specific targets defined by law (Secretaria do Tesouro Nacional, 2016d para 1). The federal debt consists of contractual debts with multilateral institutions and government bonds issued by the Treasury; these contracts and bonds can be Real or dollar-denominated (Secretaria do Tesouro Nacional, 2016d para 5). Brazil uses the currency of denomination to distinguish between domestic and external debt (Silva & de Medeiros, 2010, p. 98).

The domestic contractual debt has been securitised over the years (Secretaria do Tesouro Nacional, 2016d para 5). Thus, nowadays, the entire federal debt circulating in the domestic market is Real-denominated bonds, known as Domestic Federal Public Debt (DFPD) or Federal Domestic Marketable Debt (FDMDi). The federal debt circulating in the international market is dollar-denominated either in contracts or bonds, and known as Federal External Public Debt (FEPD) (Secretaria do Tesouro Nacional, 2016b, p. 6).

The external debt component of the federal debt has declined since the 1990s due to the government's attempts to capture funds through public bonds issuance in the national market in Brazilian Reals (Secretaria do Tesouro Nacional, 2016d para 5) (Figure A.1). The reduction in the share of federal external debt is the federal government's strategy to minimise the exchange rate risk (Silva & de Medeiros, 2010, p. 98). In October 2016, the total stock of federal debt was R$ 3,046.91 billion and of FDMDi R$ 2,909.28 billion (Secretaria do Tesouro Nacional, 2016c, p. 10).

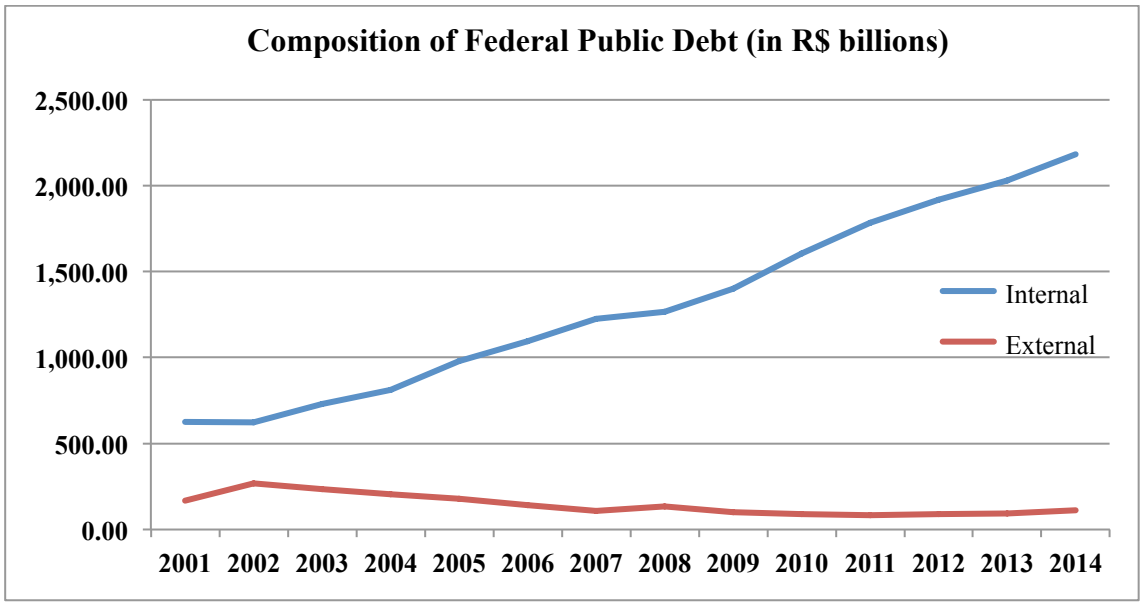

Figure A.1: Federal Public Debt 2001 - 2014 (in R$ billions)
Source: Secretaria do Tesouro Nacional (2016a)

The majority of FDMDi (95%) in circulation is registered in the Special System for Settlement and Custody (SELIC); this system also calculates the Brazilian banks' overnight rate, the SELIC rate. The rest is registered in the Centre for Custody and Financial Settlement of Securities (CETIP); CETIP calculates the Average One-Day Interbank Deposit (CDI or overnight DI rate) (Secretaria do Tesouro Nacional, 2016b, p. 7).

Interest payments on the FDMDi mainly follow one of six indexes: interest rate (SELIC), exchange rate, inflation rate based on three different price indexes (IPCA, IGP-M and IGP-DI), reference rate (TR), long-term interest rate (TJLP), which applies to subsidised loans from the Brazilian National Development Bank (BNDES), and fixed-rate fraction (Carvalho et al., 2016, p. 561). In this light, the FDMDi is composed of fixed rate bonds and a wide range of floating indexes (until 2002, dollar-indexed instruments as well) (Table A.1).

Table A.1: Main Federal Government Bonds*

Debt Instruments	Issuer	Use	Type of Coupon	Register
LTN (Letras do Tesouro Nacional)	STN	Cover Budget Deficit	Fixed-rate	SELIC
LFT (Letras Financeira de Tesouro)	STN	Cover Budget Deficit	Indexed to the SELIC	SELIC
NTN (Notas do Tesouro Nacional)	STN	Cover Budget Deficit	Indexed to a series of different indexes, such as IPCA (Extended National Consumer Price Index); IGP-M (General Price Index-Market); Dollar, TR, etc. Exception: NTN-F is fixed rate	SELIC
CFT (Certificado Financeiro do Tesouro)	STN	Financial operations determined by law	Indexed to a series of different indexes, such as IPCA (Extended National Consumer Price Index); IGP-M (General Price Index-Market); Dollar, TR, etc. Exception: CFC-F is fixed rate	CETIP
CTN (Certificado do Tesouro Nacional)	STN	Guarantee of the principal in the novation of debts of borrowers of agricultural credit to financial institutions	Indexed to the IGP-M	CETIP
CDP (Certificado da Dívida Pública)	STN	Debt settlement with the National Institute of Social Security - INSS	Indexed to the TR	CETIP
TDA (Título da Dívida Agrária)	STN	Promotion of Agrarian Reform	Indexed to the TR	CETIP
Securitised Debt	STN	Renegotiation of Brazilian Federal Government Union debts, whether or not incurred by law	Indexed to a series of different indexes, such as the IGP-M (General Price Index-Market); Dollar; and TR	CETIP

Source: Author's elaboration based on Amante, Araujo, & Jeanneau (2007) p. 73; Carvalho et al. (2016), p. 562; Secretaria do Tesouro Nacional (2016b), p. 7)

* The LFT, LTN and NTN represent 95% of the total domestic marketable debt of the federal government. The LFT, whose floating rate remuneration is based on the SELIC rate, is the largest government security in terms of outstanding amounts. The NTN-F, which is a standard coupon-bearing fixed rate security, has expanded considerably in recent years. Debt issuance by states and municipalities is modest (Amante, Araujo, & Jeanneau, 2007, p. 7).

The Brazilian authorities focus on two main concepts of public sector debt: the gross general government debt (GGGD) and the net public sector debt (NPSD). The GGGD and NPSD both encompass the three administrative levels of government (federal government, states and municipalities), but only the NPSD includes the liabilities of the BCB and state-owned enterprises.

The NPSD includes the FDMDi and contractual debt, reserve requirements, repurchase agreement operations (repo) and the monetary base (Silva & de Medeiros, 2010, p. 92). These two main concepts of debt, i.e. CGGD and NPSD, include both internal and external debt. In December 2014, the GGGD and NPSD amounted to approximately 57 percent and 33 percent of GDP respectively (Banco Central do Brasil, 2016b; IPEAData, 2016). Due to the decline in the external debt component, the NSPD results largely from the netting of domestic assets and liabilities (see Chapter 4).

The Brazilian Treasury (Secretaria do Tesouro Nacional – STN) is the only authority responsible for the issuance and management of public sector debt, both internal and external. The Central Bank of Brazil (BCB) is not independent and cannot issue bonds, although it is responsible for public debt management since it is in charge of operating primary auctions of public sector bonds. Further, in the conduct of monetary policy, it utilises government bonds in liquidity control operations when playing an active role in repo operations linked to these bonds. In this last case, the Treasury can issue federal bonds directly to the Central Bank's portfolio, without any financial counterpart, to either reallocate this portfolio to an adequate level so the bank can carry out monetary policy, or to compensate for the negative result of these operations.

This relationship between the BCB and the Treasury raises some questions regarding the adequacy of the GGGD as a fiscal indicator according to the IMF's guidelines for publishing fiscal data. See Santos (2015) for more details.

This thesis broadly examines the NPSD while especially examining the FDMDi, i.e., the debt circulating in the domestic market in Real-denominated bonds, henceforth, domestic public debt (DPD).